



American Soils Engineering, LLC
6000 S. Eastern Avenue, Suite 12E
Las Vegas, NV 89119
Telephone: (702) 889-9617
Fax: (702) 88-9614

TEST PIT NUMBER TP-30

PAGE 1 OF 1

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

DATE STARTED 7/25/05 COMPLETED 7/25/05

EXCAVATION CONTRACTOR American Soils Engineering

EXCAVATION METHOD Backhoe

LOGGED BY Q. Babul P.E. CHECKED BY Q. Babul P.E.

NOTES

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley, Kingman Ranch

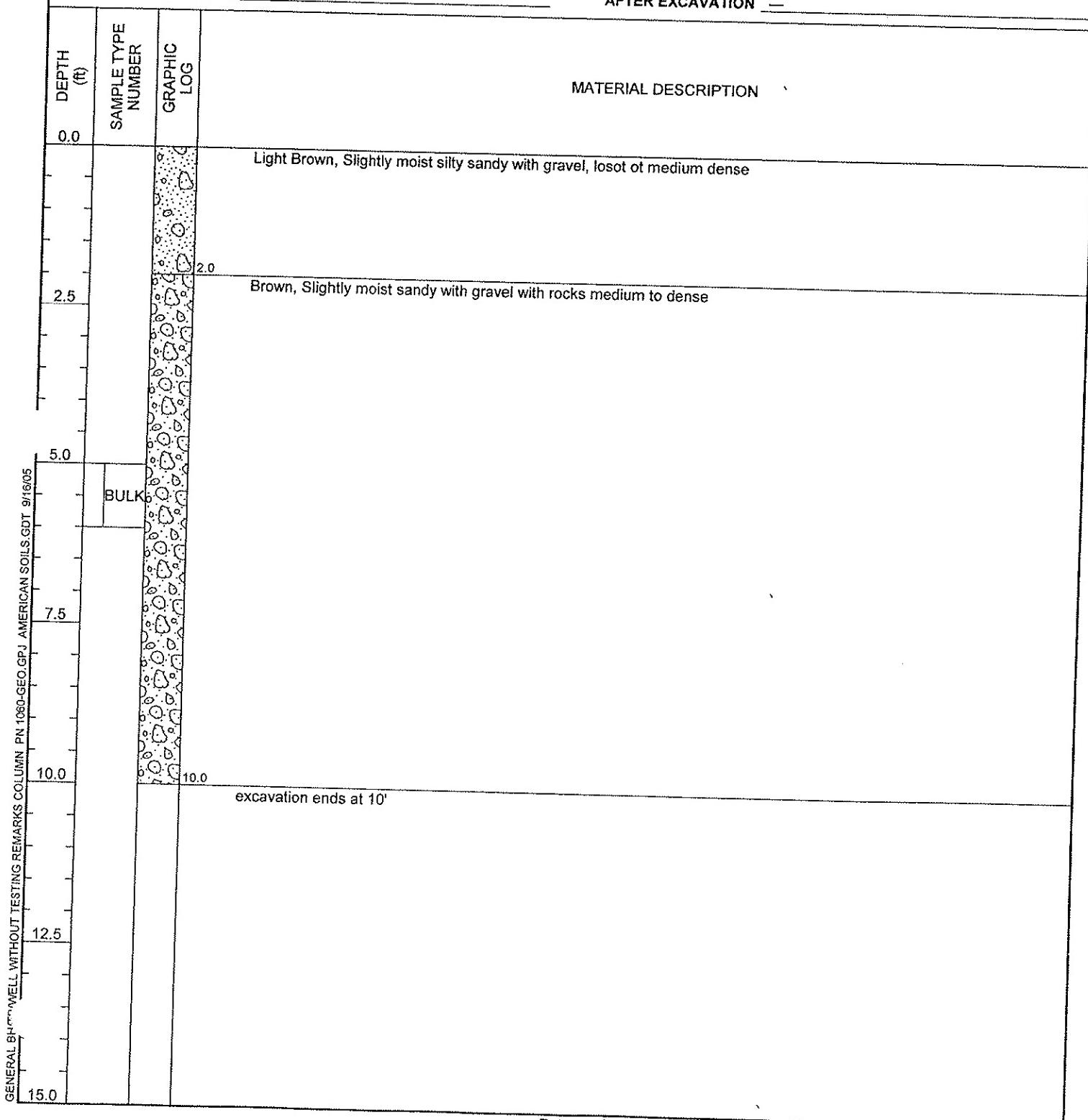
GROUND ELEVATION _____ TEST PIT SIZE _____

GROUND WATER LEVELS:

AT TIME OF EXCAVATION _____

AT END OF EXCAVATION _____

AFTER EXCAVATION _____



Bottom of test pit at 15.0 feet.



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TEST PIT NUMBER TP-31

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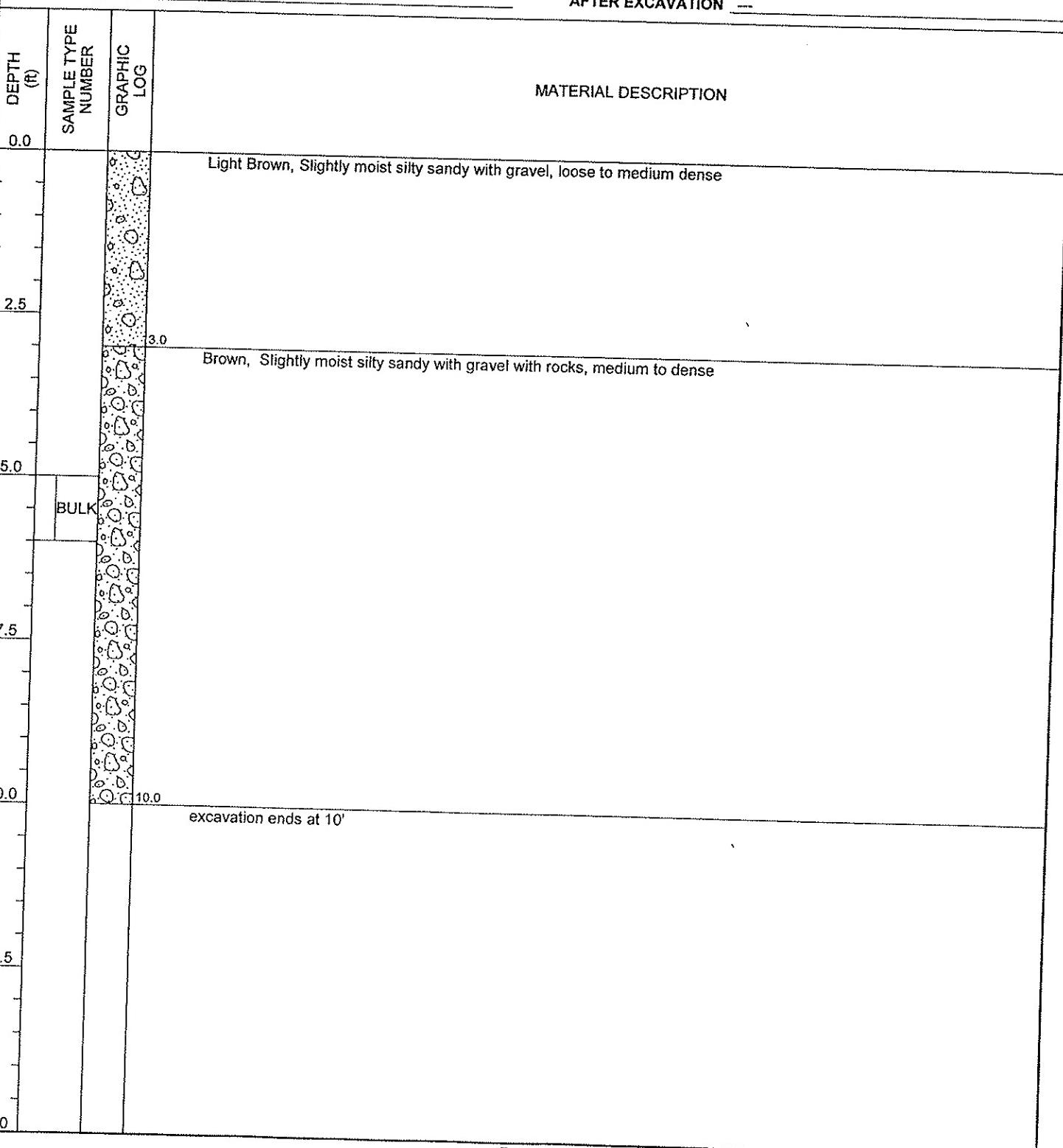
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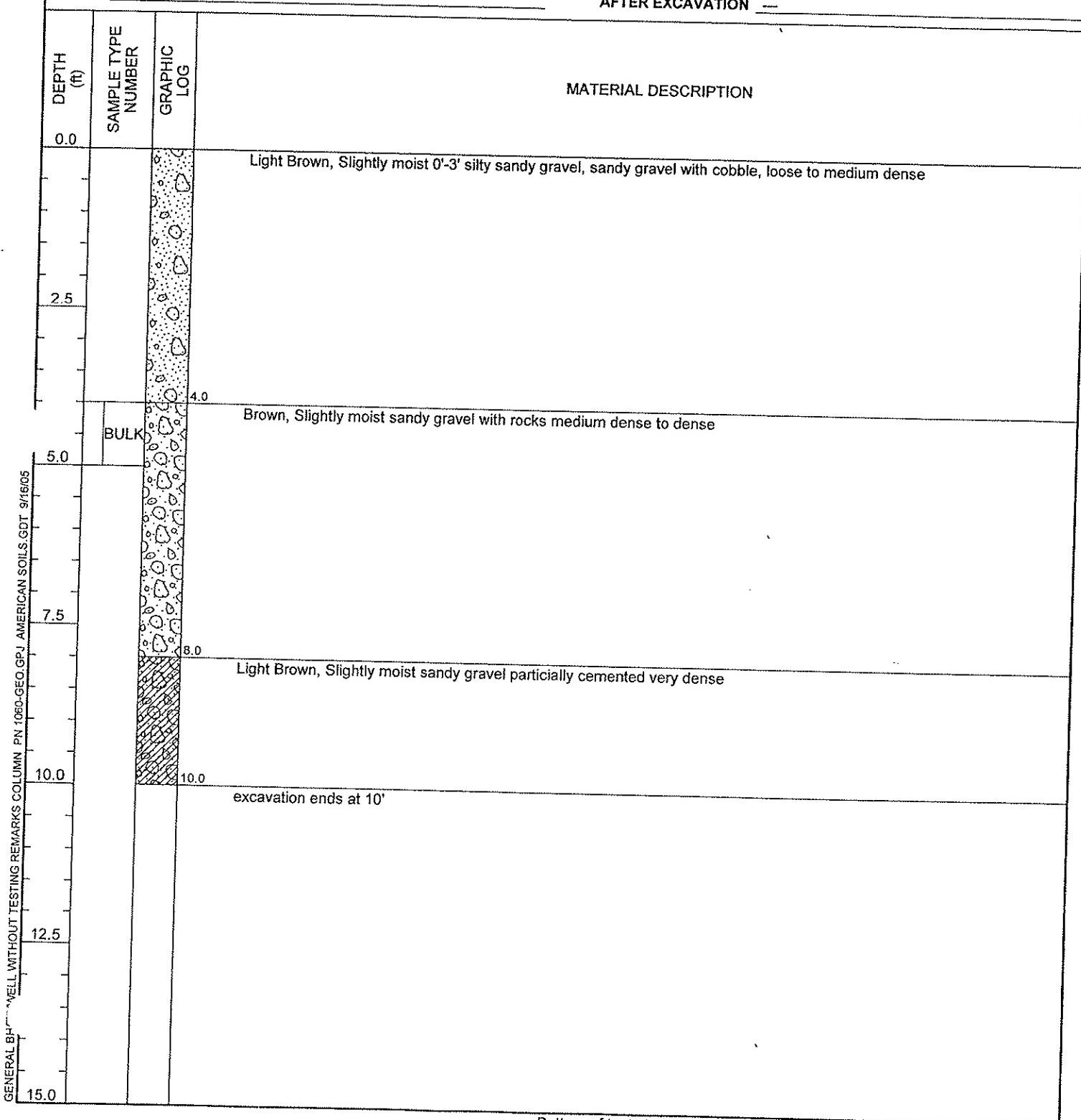
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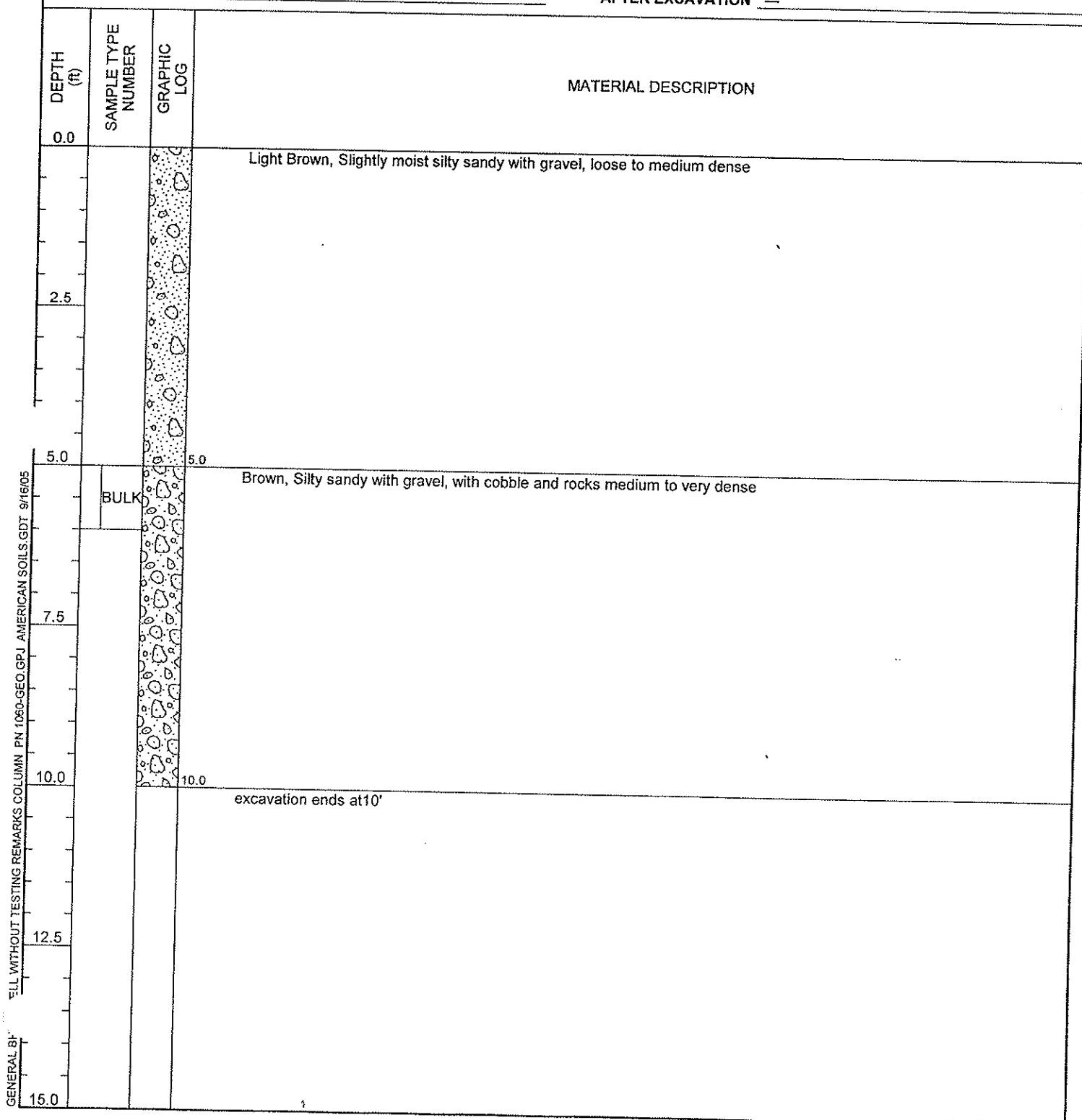
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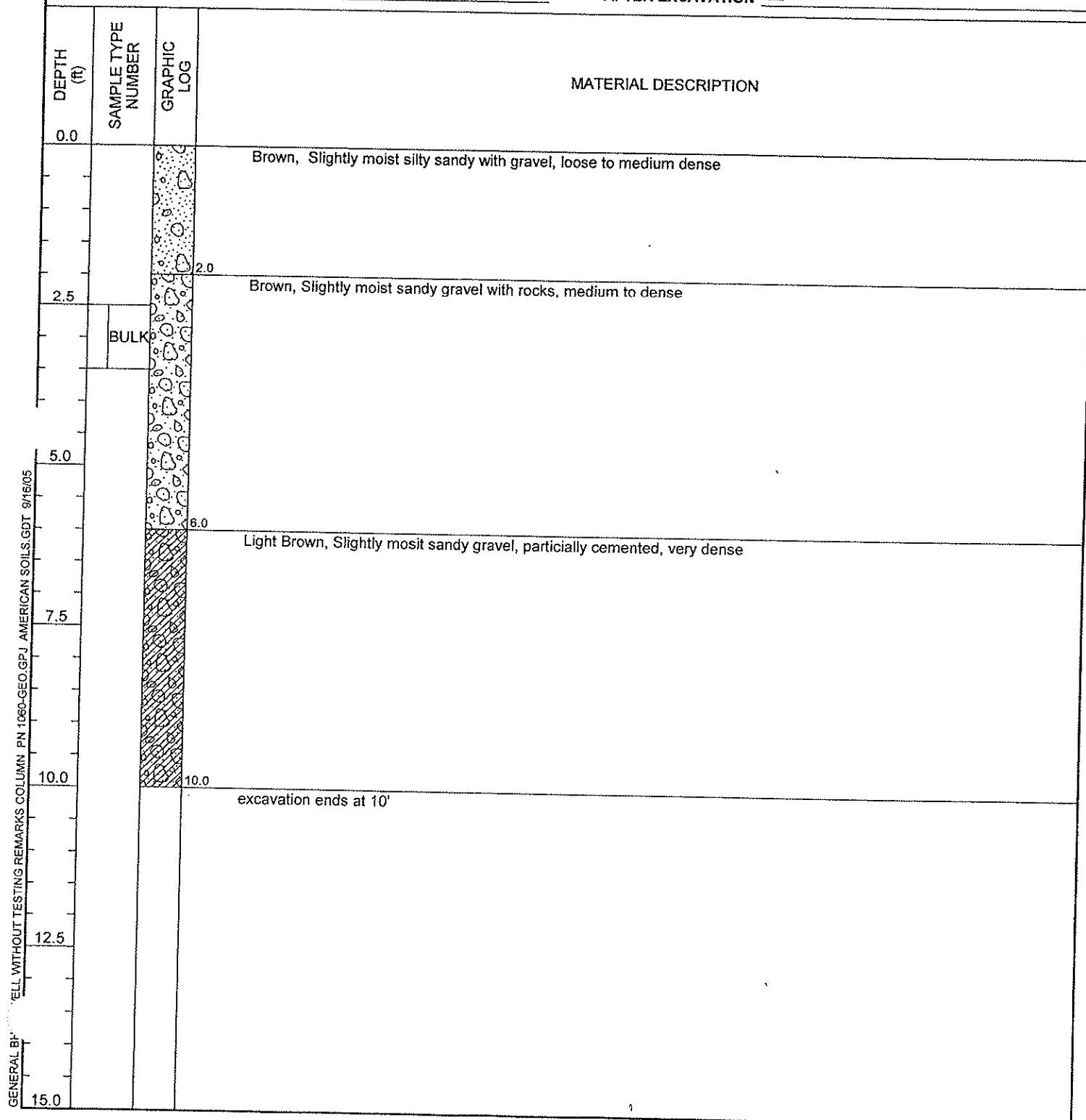
GROUND ELEVATION TEST PIT SIZE

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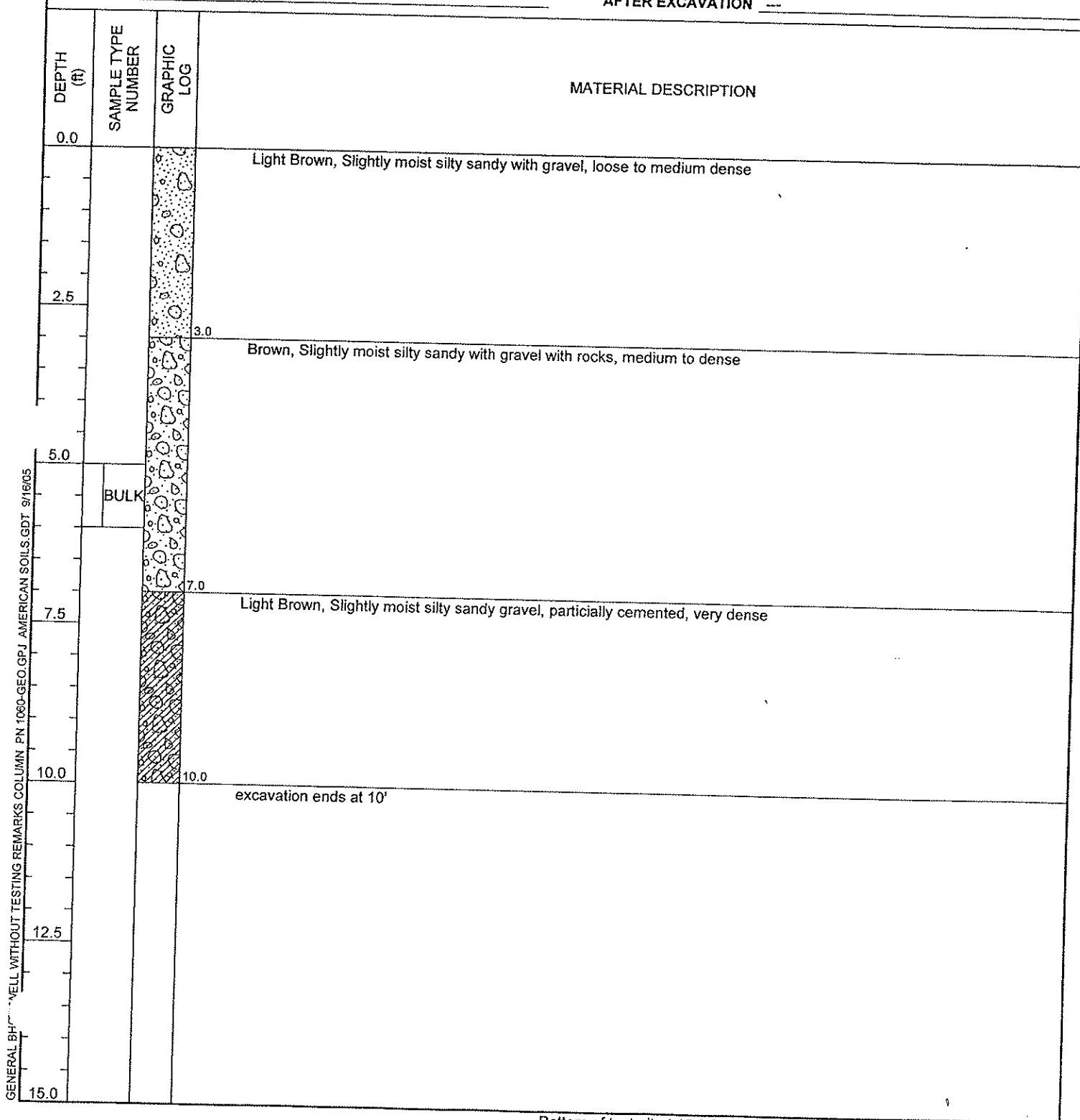
GROUND ELEVATION _____ TEST PIT SIZE _____

GROUND WATER LEVELS:

AT TIME OF EXCAVATION _____

AT END OF EXCAVATION _____

AFTER EXCAVATION _____



Bottom of test pit at 15.0 feet.



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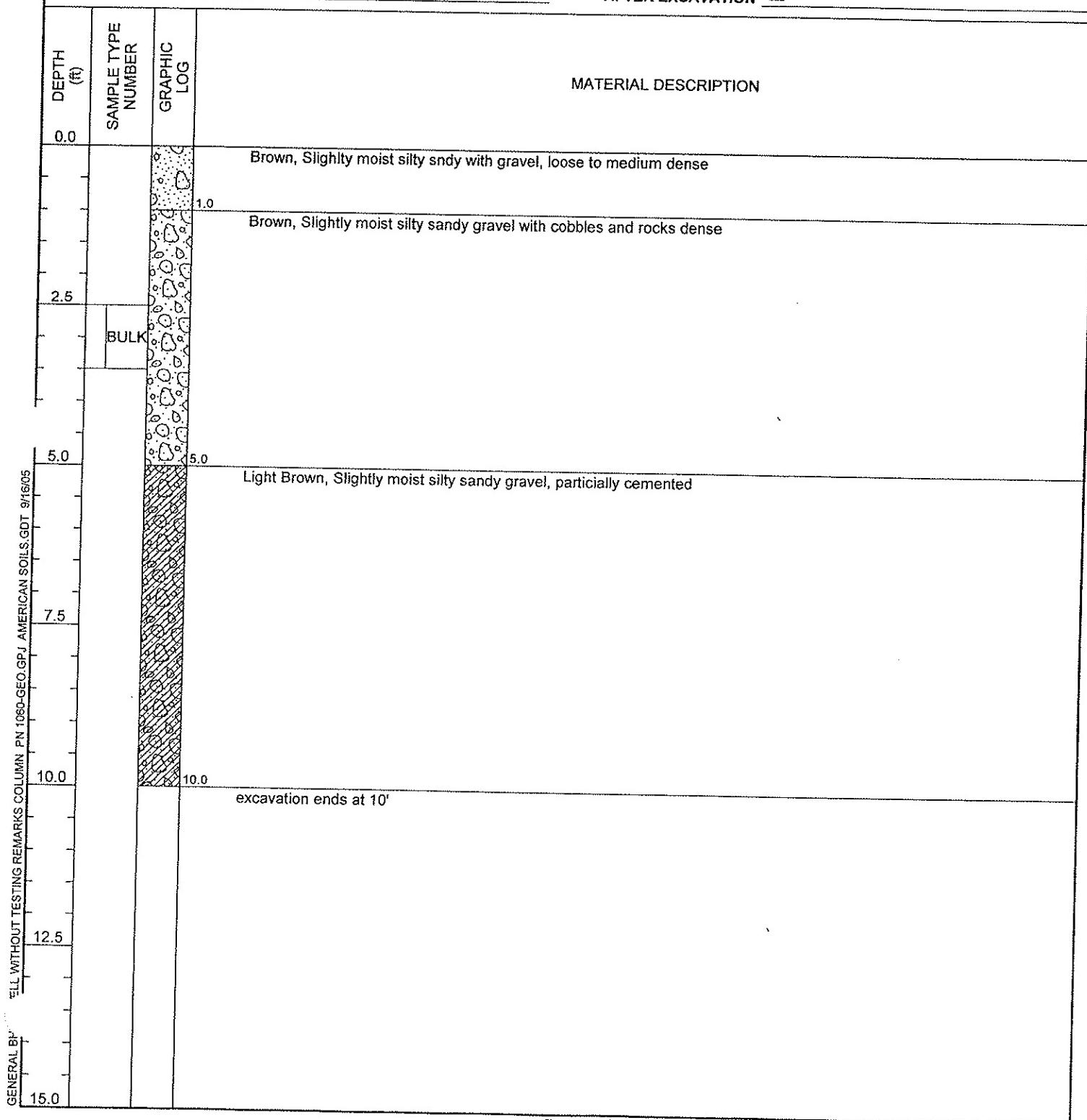
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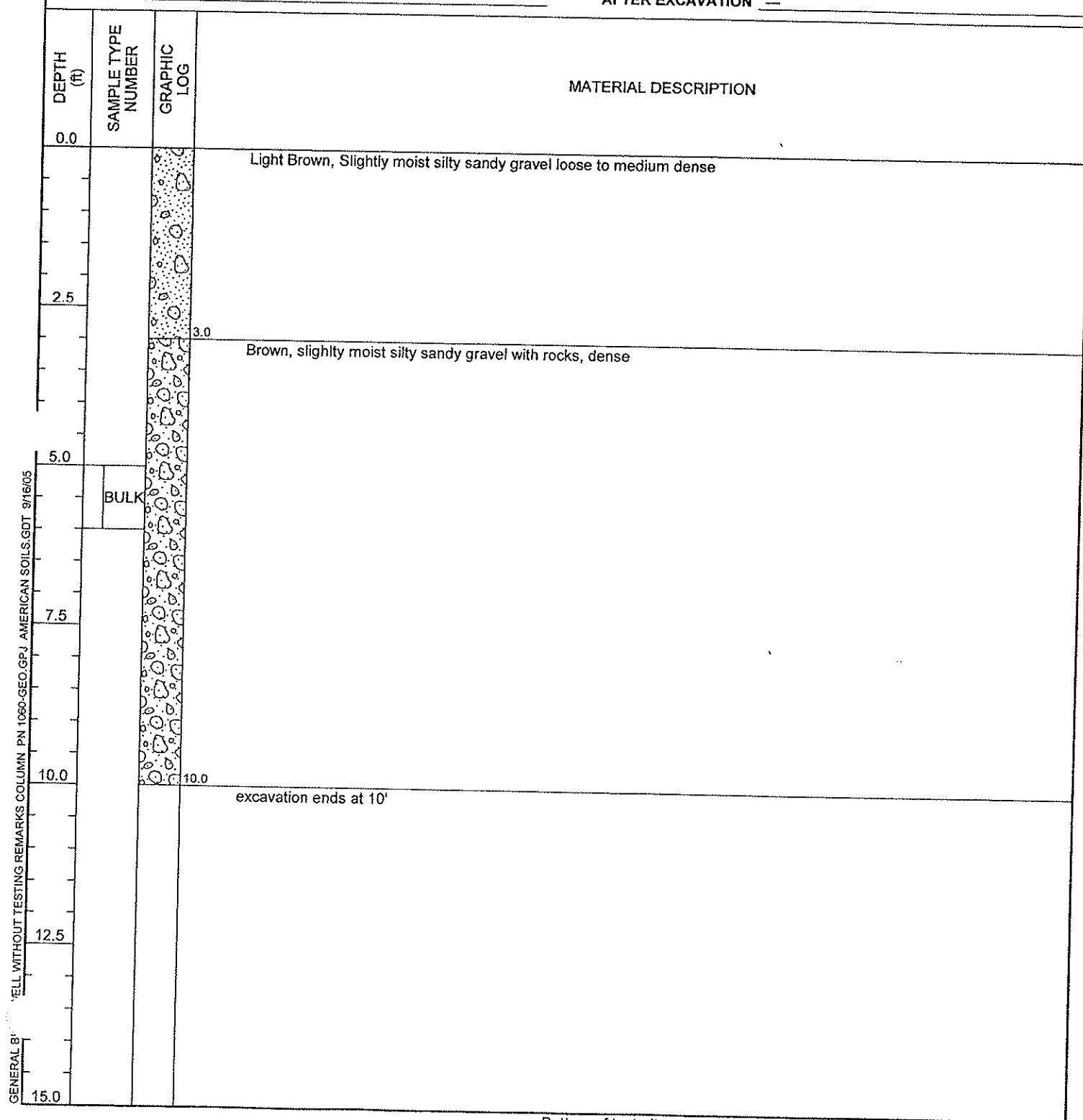
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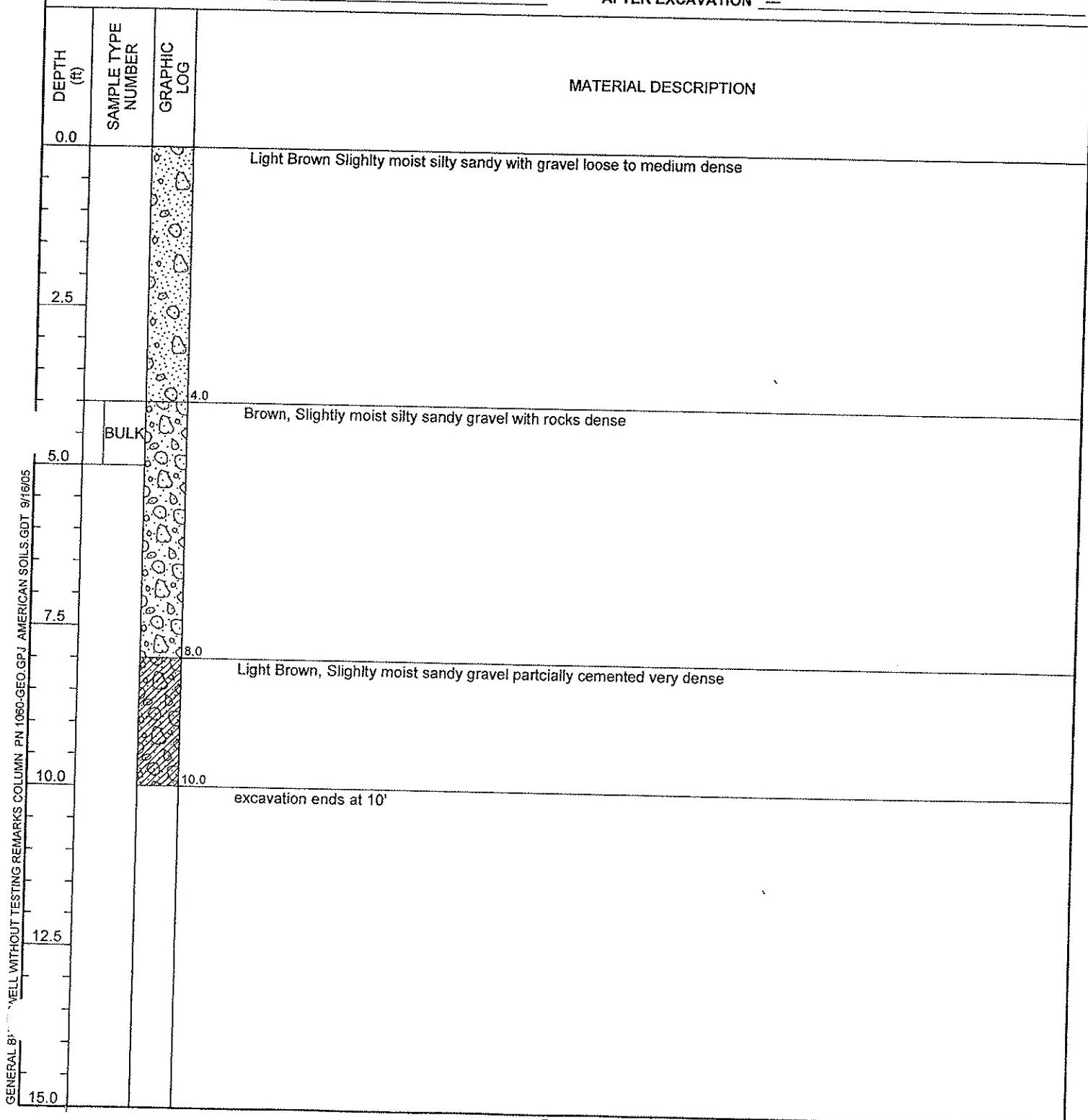
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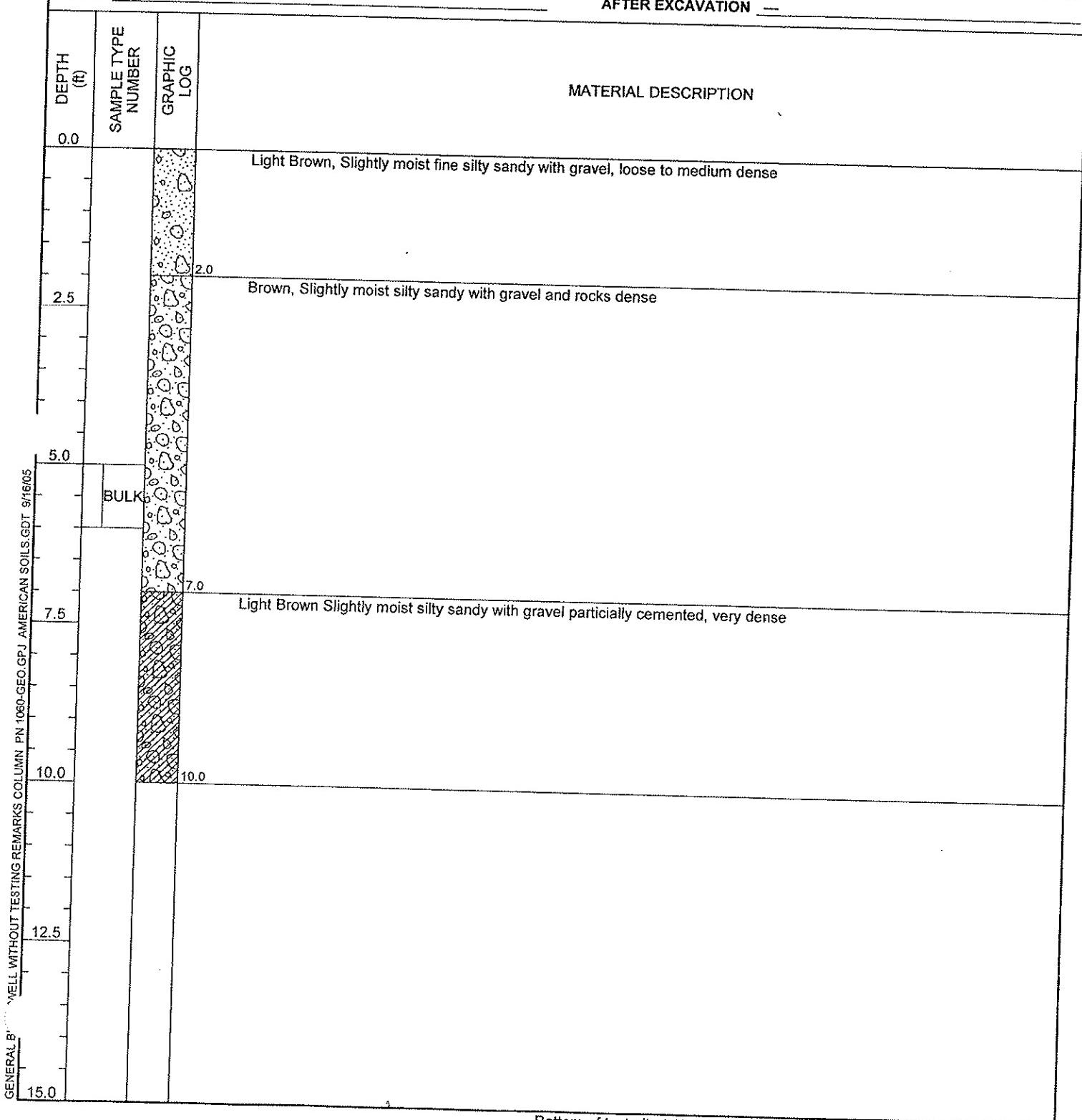
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TEST PIT NUMBER TP-40

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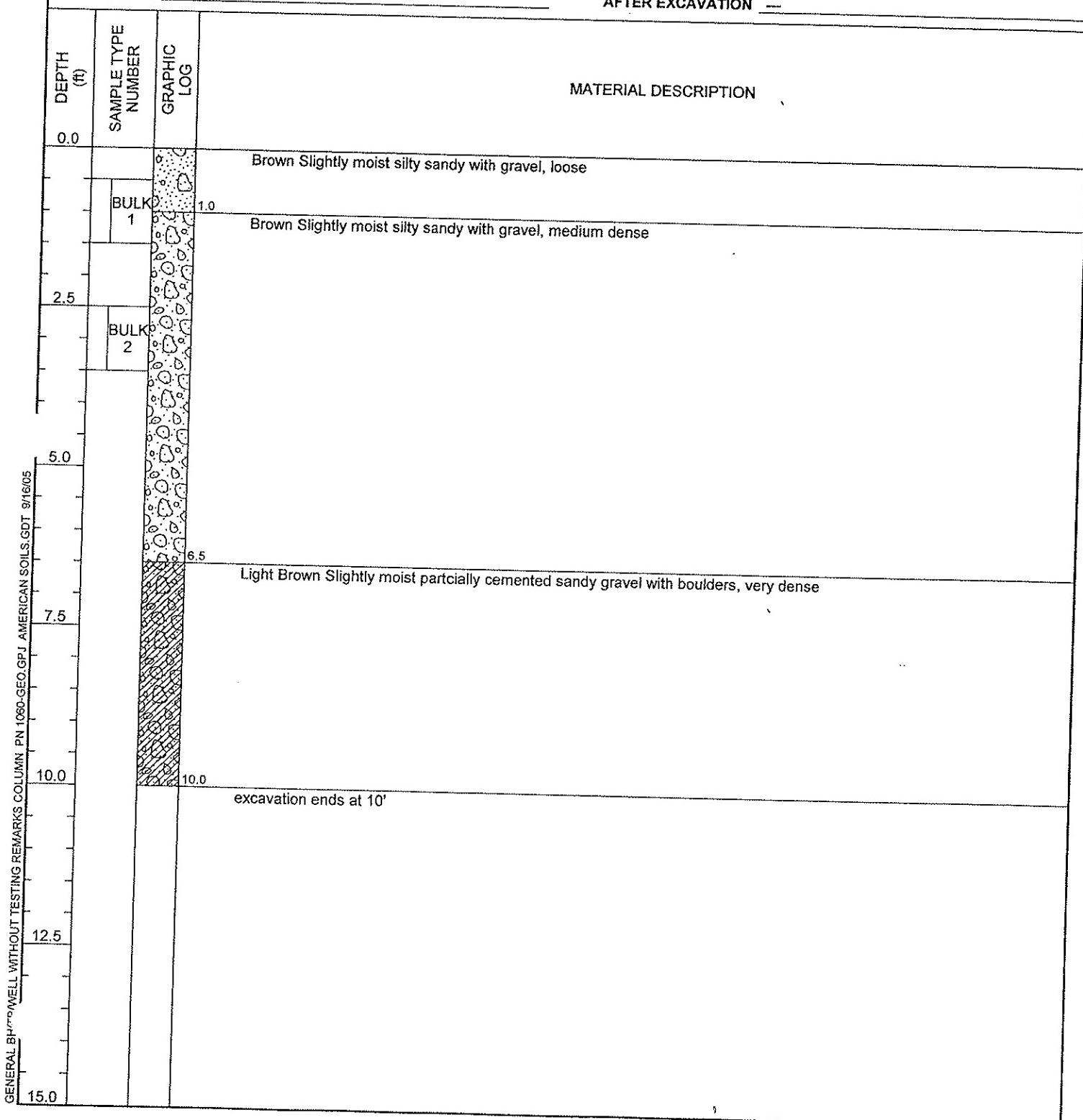
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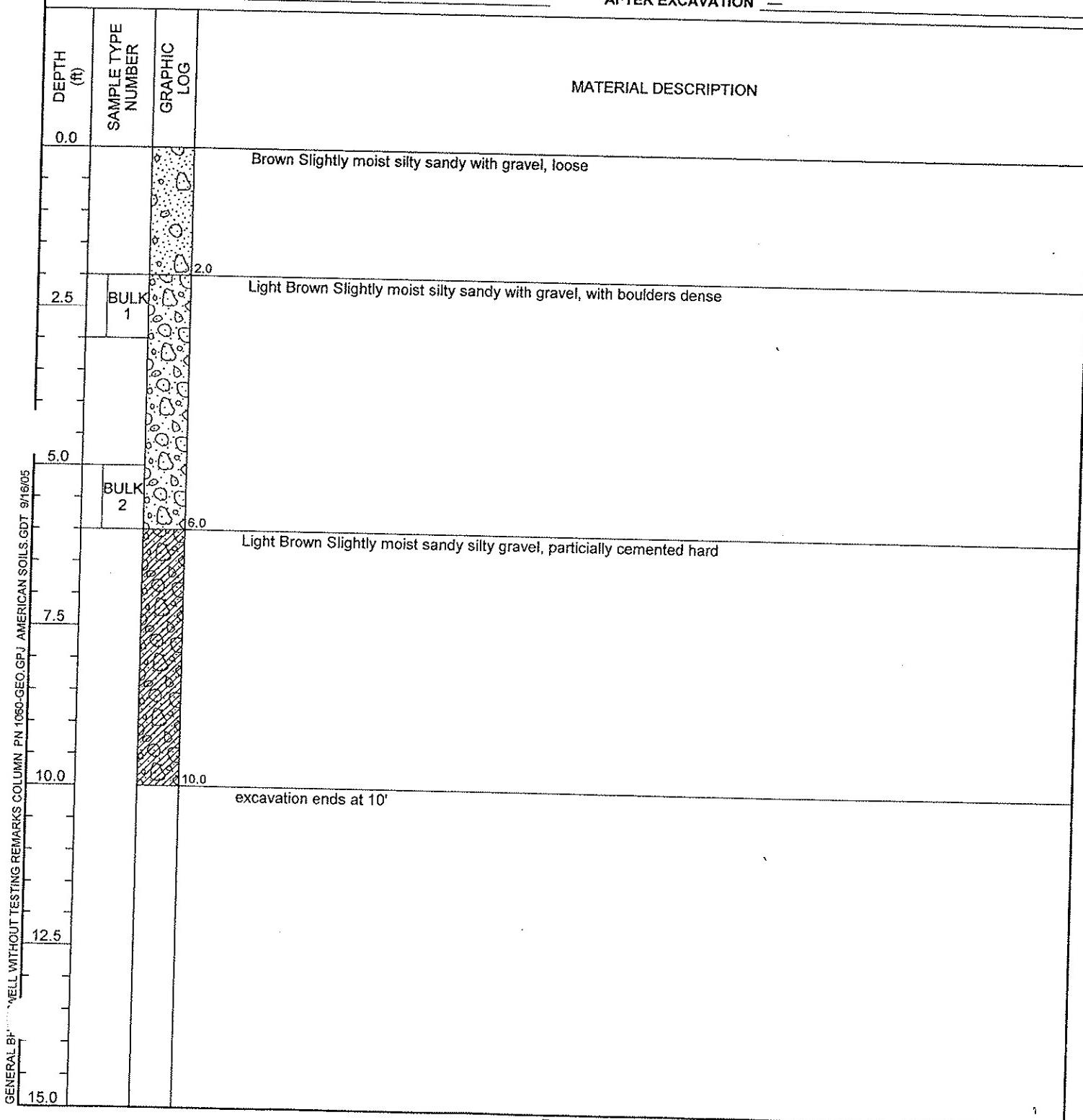
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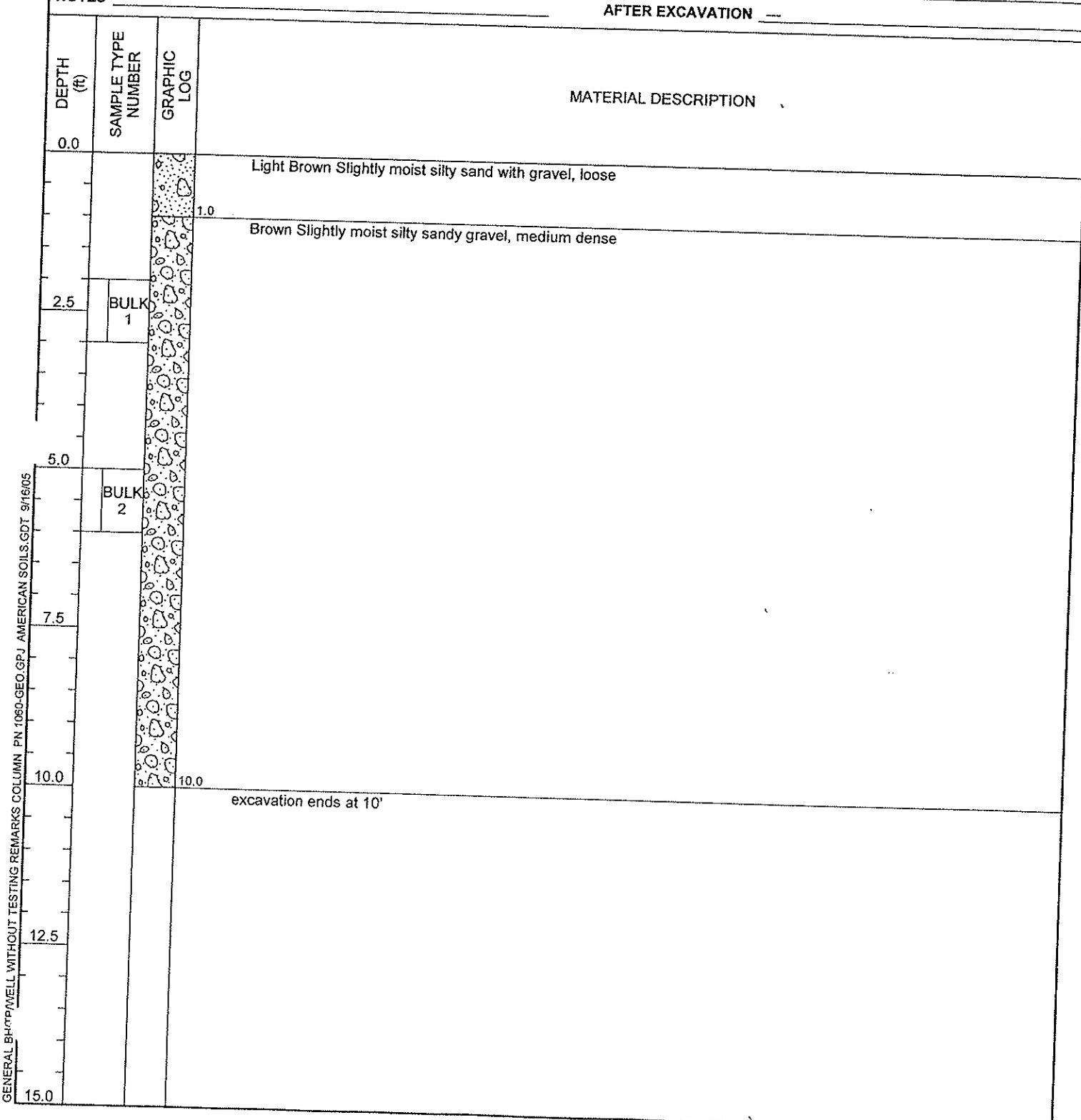
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Bottom of test pit at 15.0 feet.



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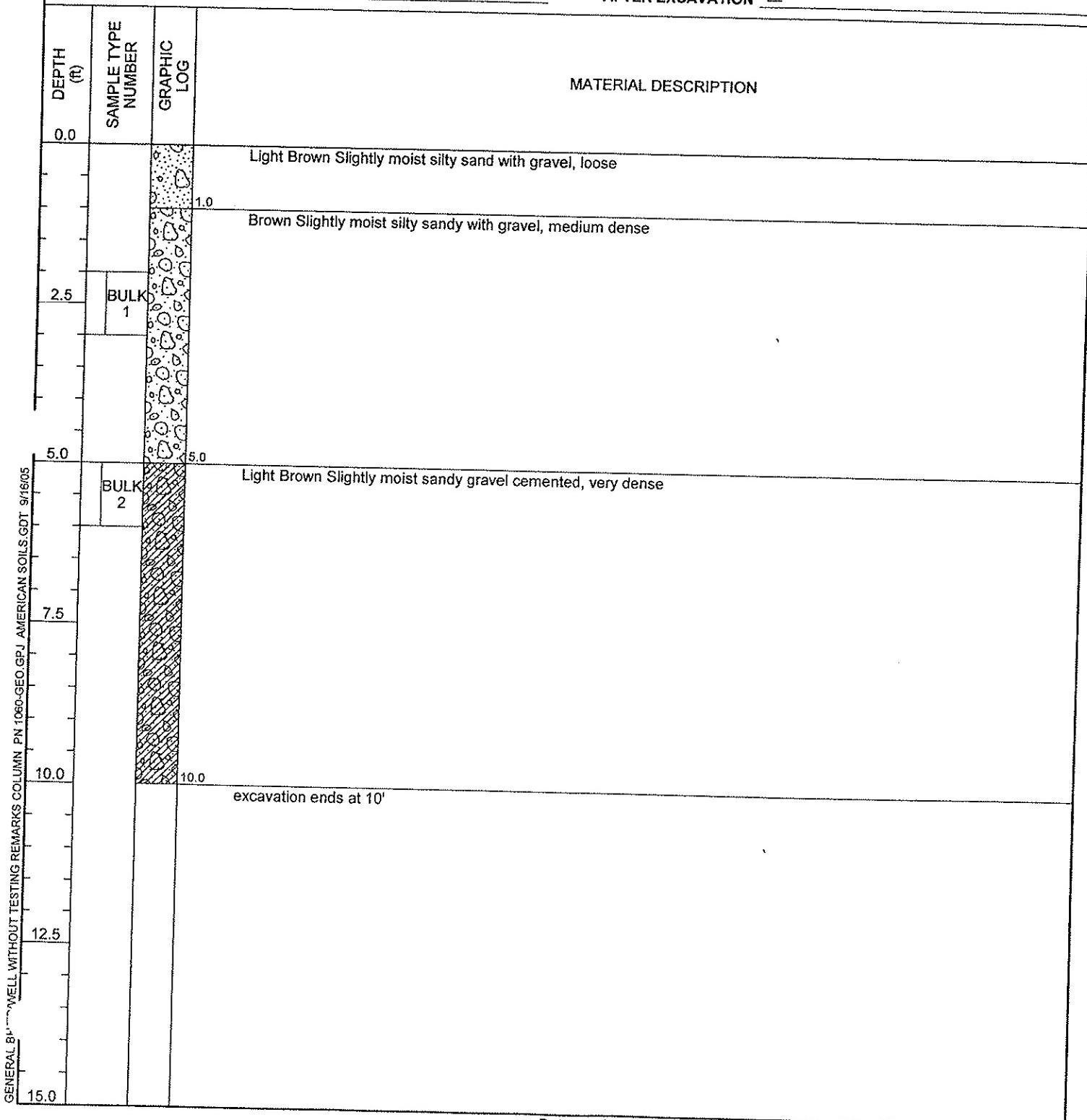
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PAGE 1 OF 1

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DATE STARTED 8/29/05 **COMPLETED** 8/30/05

EXCAVATION CONTRACTOR American Soils Engineering

EXCAVATION METHOD—Backhoe

LOGGED BY Q. Babul R.E. SEARCHED

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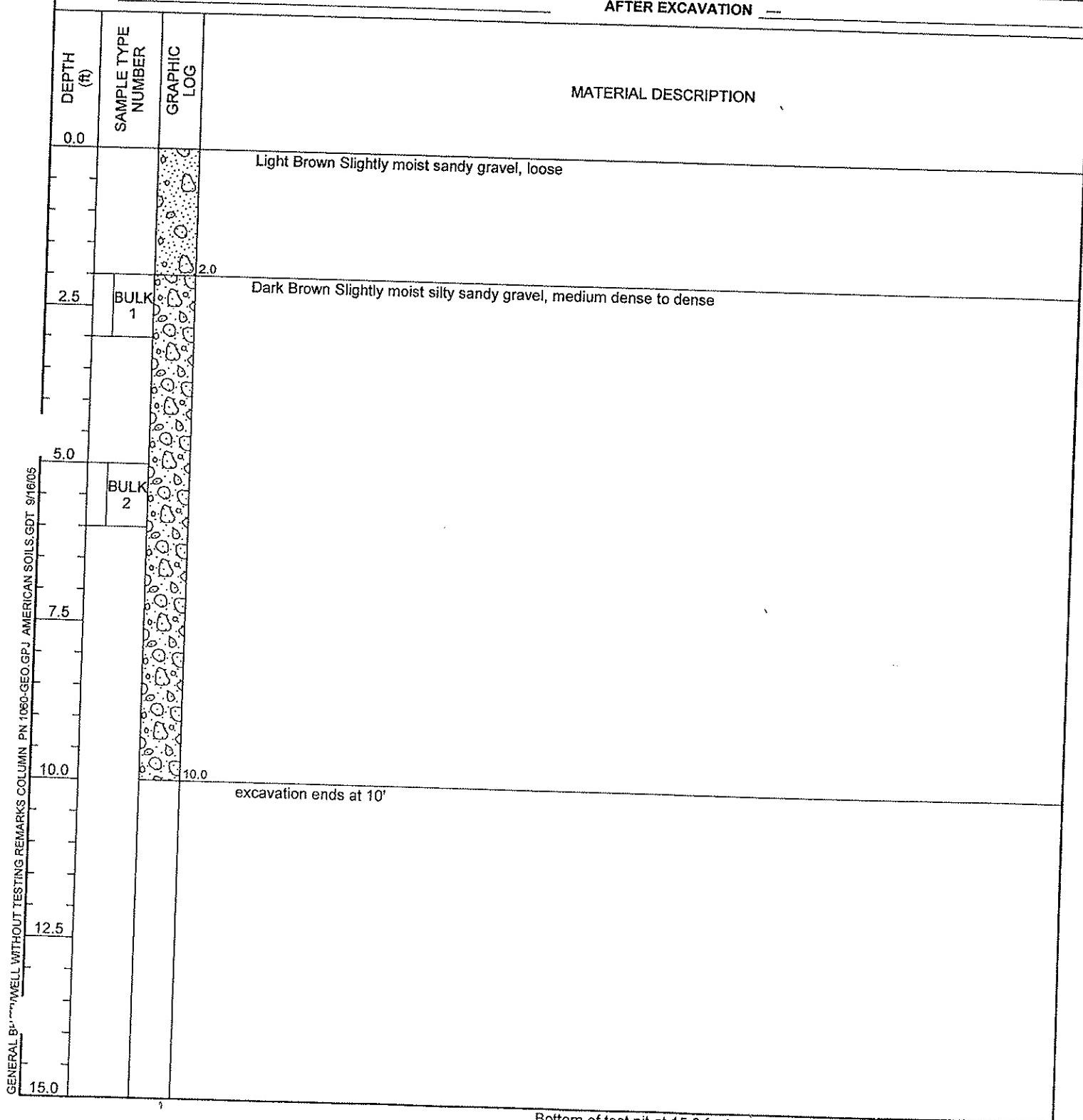
GROUND ELEVATION **TEST PIT SIZE**

GROUND WATER LEVELS:

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AT END OF EXCAVATION

AFTER EXCAVATION



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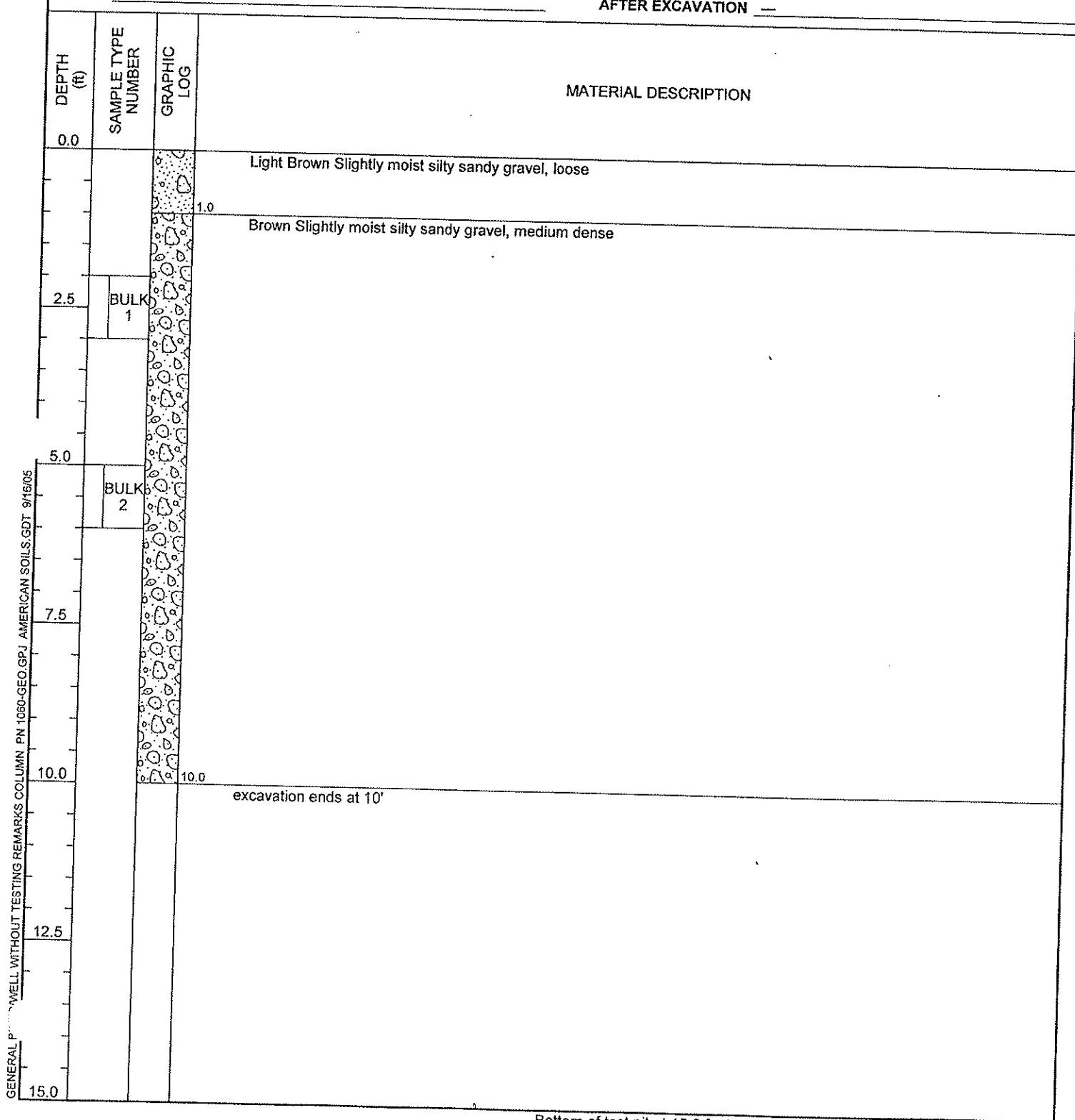
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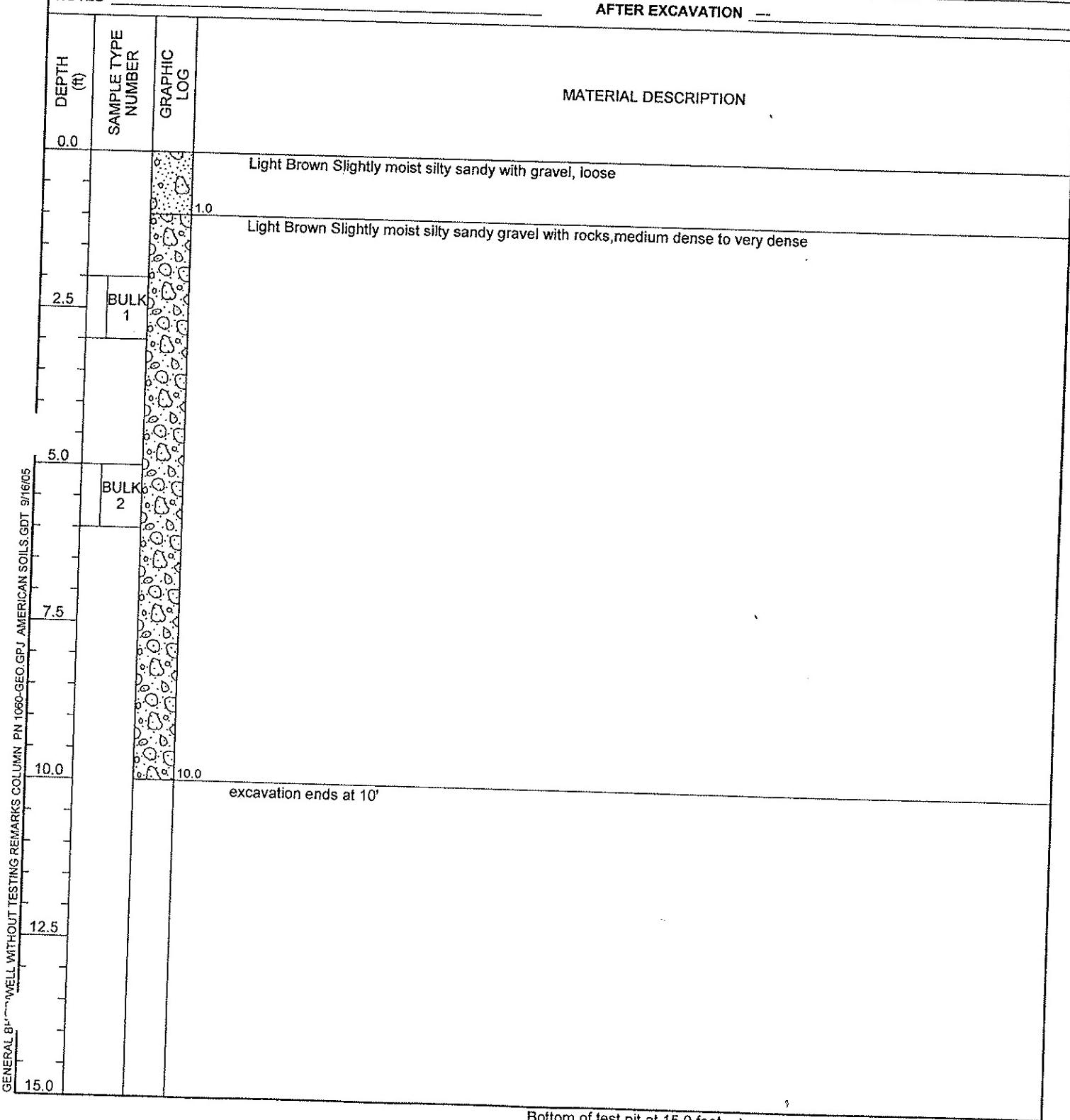
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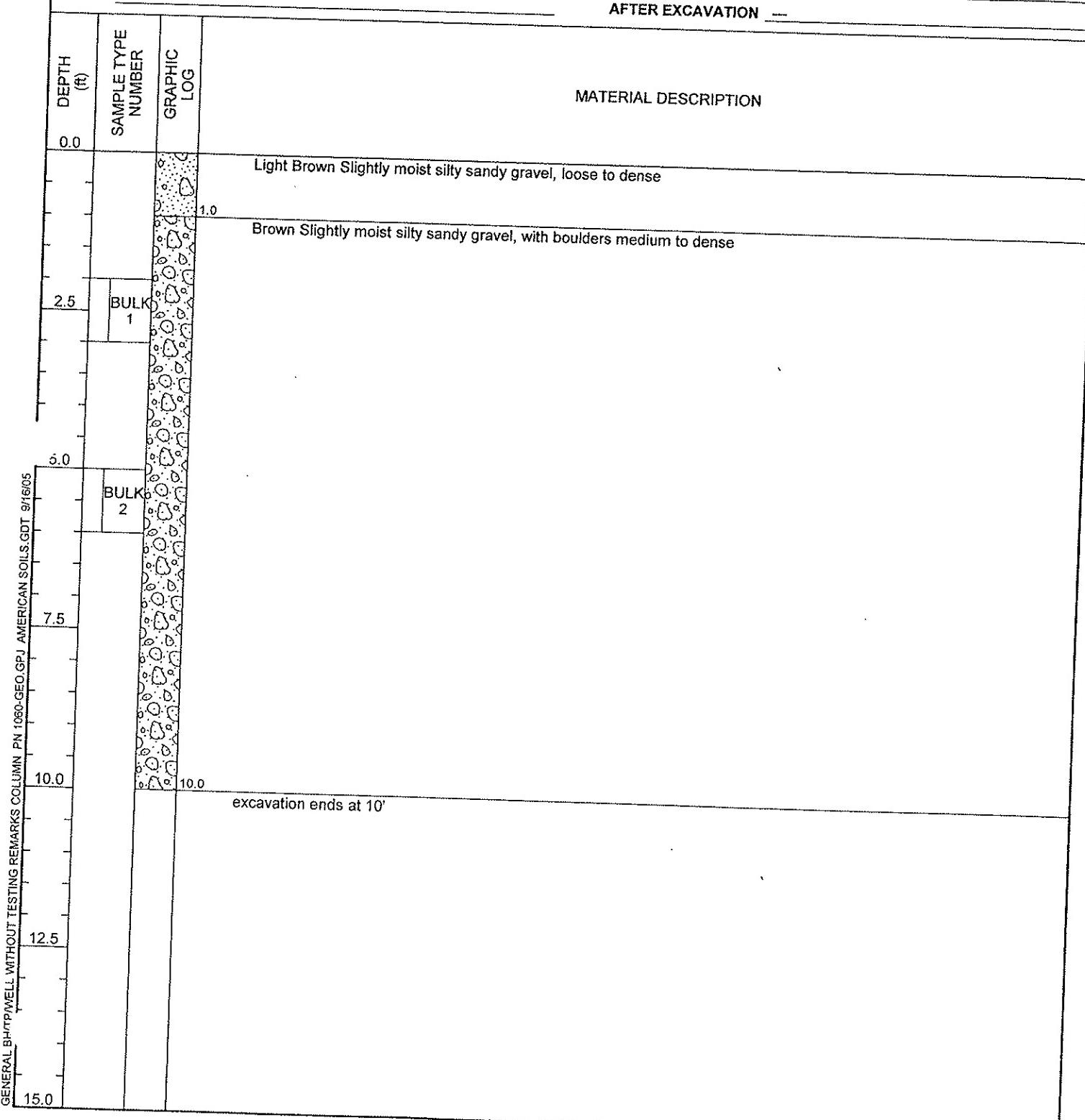
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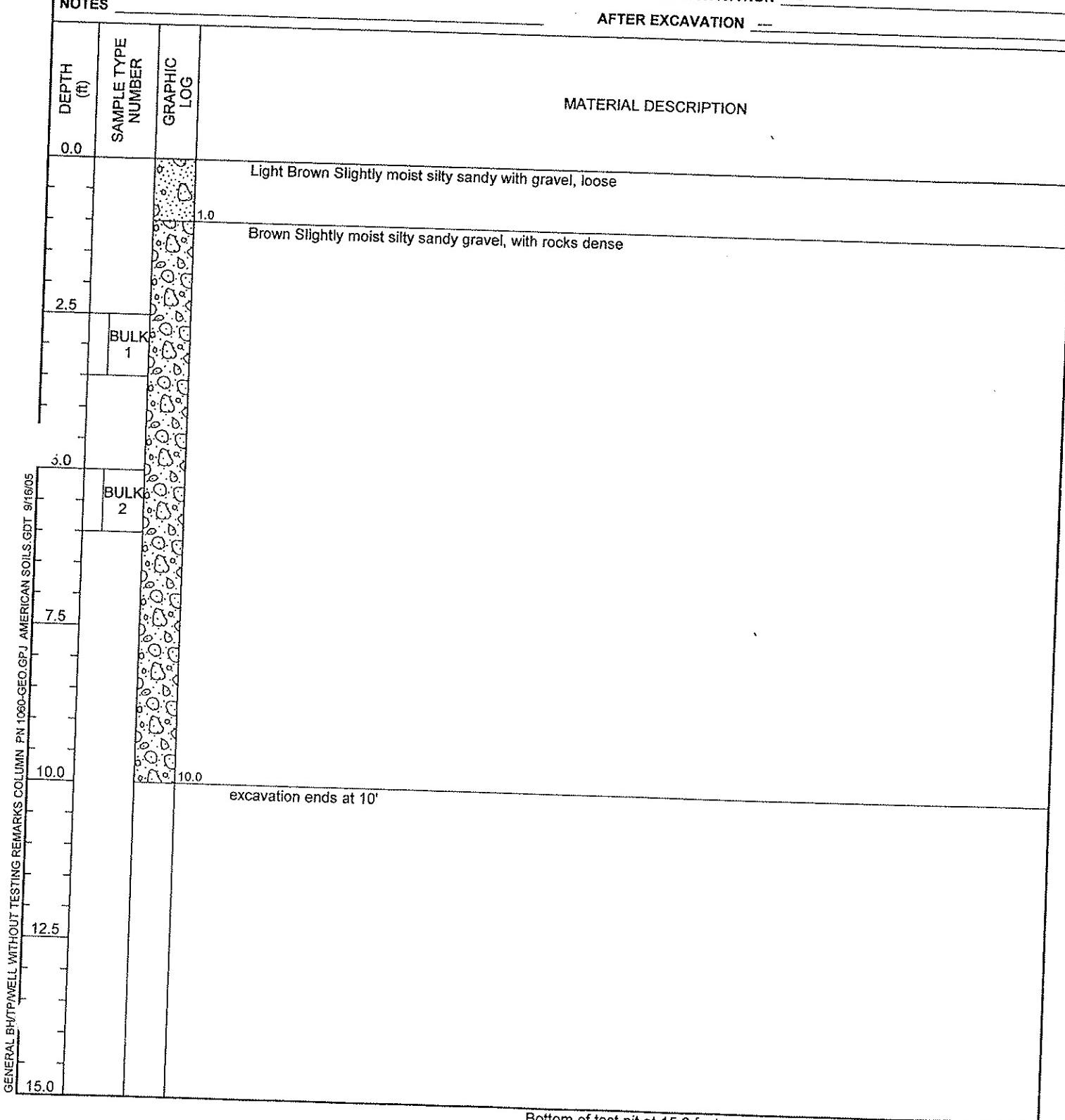
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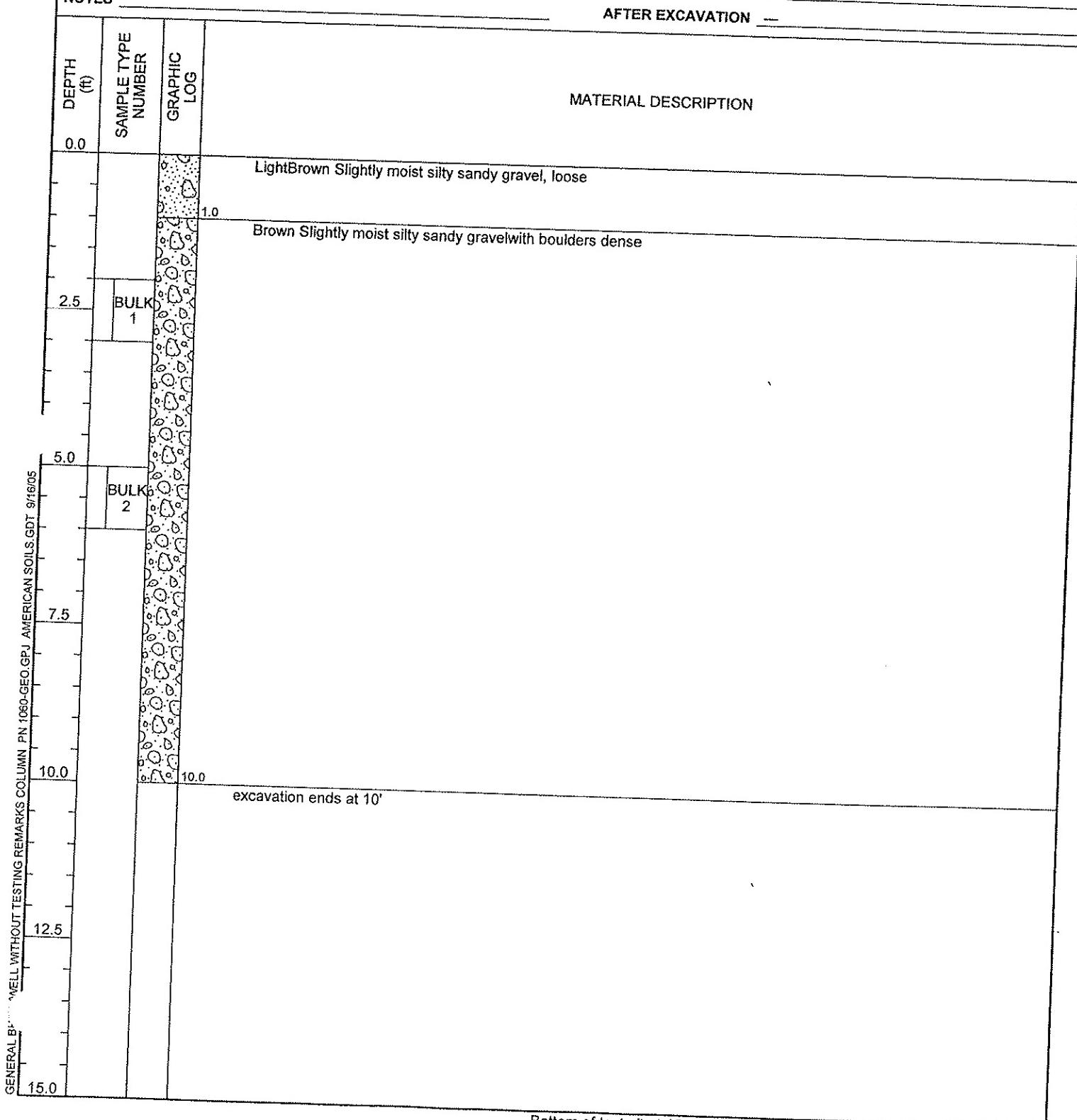
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APPENDIX B

LABORATORY TESTS RESULTS (P.N. 1060-GEO)

EXPANSION TESTS

Swell tests were performed on 33 remolded samples, which were collected during subsurface exploration of the subject site. The samples were remolded at 90 percent of the material's maximum dry density. Samples were tested under a 60 pound per square foot surcharge. Test results are listed below:

Sample Location	Sample Depth	Swell (%)	Expansion Classification
TP-1	3 feet	1.8	Low Expansive
TP-3	5 feet	0.9	Low Expansive
TP-4	3 feet	1.5	Low Expansive
TP-5	5 feet	0.5	Low Expansive
TP-7	8 feet	1.0	Low Expansive
TP-8	5 feet	0.9	Low Expansive
TP-13	3 feet	1.7	Low Expansive
TP-20	2 feet	2.6	Low Expansive
TP-20	5 feet	1.1	Low Expansive
TP-25	5 feet	0.7	Low Expansive
TP-33	5 feet	1.3	Low Expansive
TP-35	7 feet	1.4	Low Expansive
TP-39	2 feet	1.2	Low Expansive
TP-40	1.5 feet	4.9	Moderately Expansive
TP-40	3 feet	1.1	Low Expansive
TP-41	2 feet	6.7	Moderately Expansive
TP-41	5 feet	1.6	Low Expansive
TP-42	2 feet	2.5	Low Expansive
TP-42	5 feet	0.9	Low Expansive
TP-43	2 feet	6.4	Moderately Expansive
TP-43	5 feet	0.5	Low Expansive
TP-44	2 feet	4.9	Moderately Expansive
TP-44	5 feet	1.0	Low Expansive
TP-45	2 feet	2.5	Low Expansive
TP-45	5 feet	2.5	Low Expansive
TP-46	3 feet	2.1	Low Expansive
TP-46	6 feet	0.6	Low Expansive
TP-47	2 feet	2.1	Low Expansive
TP-47	6 feet	1.1	Low Expansive
TP-48	2 feet	1.5	Low Expansive
TP-48	5 feet	0.5	Low Expansive
TP-49	3 feet	1.7	Low Expansive
TP-49	3 feet	0.7	Low Expansive

LABORATORY TESTS RESULTS (P.N. 1060-GEO)

Chemical Testing

To evaluate the corrosive potential of the subsurface soils at the subject site, five samples were submitted to *Atlas Chemical Testing Laboratories* to test the soils for sodium (Na), water soluble sulfate (SO₄), and total available water soluble sulfate (Na₂SO₄). A copy of the results provided by the Atlas Chemical Testing Laboratories is enclosed herein. Test results tests are summarized below in Table 1.

Table-1 Results of Chemical Testing

Sample Location	Depth (feet)	Sodium (Na) (%)	Water Soluble Sulfate (SO ₄) (%)	Total Available Water Soluble Sodium Sulfate (Na ₂ SO ₄) (%)
B-40	2.0	0.01	0.03	0.02
B-42	2.0	0.01	0.01	0.01
B-44	5.0	0.01	0.01	0.01
B-46	2.0	0.01	0.11	0.01
B-49	5.0	0.01	0.04	0.04

Atterberg Limits (ASTM test method D 4318)

Testing were performed on the samples in general accordance with ASTM test method D 4318-98, using the wet preparation method. Test results as follows:

SAMPLES	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
TP-20 @ 3 feet	None plastic	None plastic	None plastic
TP-23 @ 5 feet	None plastic	None plastic	None plastic
TP-27 @ 3 feet	22	20	2
TP-28 @ 1 foot	23	17	6
TP-30 @ 2.0	None plastic	None plastic	None plastic
TP-34 @ 6 feet	None plastic	None plastic	None plastic
TP-36 @ 1 foot	None plastic	None plastic	None plastic
TP-38 @ 4 feet	None plastic	None plastic	None plastic
TP-40 @ 2 feet	24	19	5
TP-42 @ 5 feet	22	19	3
TP-44 @ 2 feet	23	20	3
TP-45 @ 2 feet	23	20	3
TP-46 @ 2 feet	None plastic	None plastic	None plastic

Atlas Consultants, Inc.

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member of
**AMERICAN SOCIETY FOR
 TESTING MATERIALS**

ACT LAB NO: 13320(a) **DATE:** September 12, 2005
PROJECT NO: PN=1060-GEO **P.O.:**
ANALYZED BY: Robert L. Summers **LAB ID:**

WATER SOLUBLE SALT ANALYSIS IN SOIL

1:5 (soil:water) Aqueous Extraction
 AWWA 3500-Na D, AWWA 4500 E
 AWWA 2540 C

SOIL SIEVE SIZE = -10 MESH

Sample No.	Location	Depth (feet)	Sodium (Percent)	Water Soluble Sulfate (SO_4) (Percent)	Total Available Water Soluble Sodium Sulfate (Na_2SO_4) (Percent)
	TP#40	2.0	0.01	0.03	0.02
Solubility = 0.06%					
	TP#42	2.0	<0.01	0.01	<0.01
Solubility = 0.03%					
	TP#44	5.0	<0.01	0.01	0.01
Solubility = 0.04%					
	TP#46	2.0	<0.01	0.01	<0.01
Solubility = 0.03%					
	TP#49	5.0	0.01	0.04	0.04
Solubility = 0.09%					

LABORATORY MANAGER

N ∵ The results for each constituent denote the percentage of that analyte, at a 1:5 (soil:water) extraction ratio, which is present in the soil. Sodium was determined by flame photometry, sulfate turbidimetrically, and sodium sulfate by calculation.



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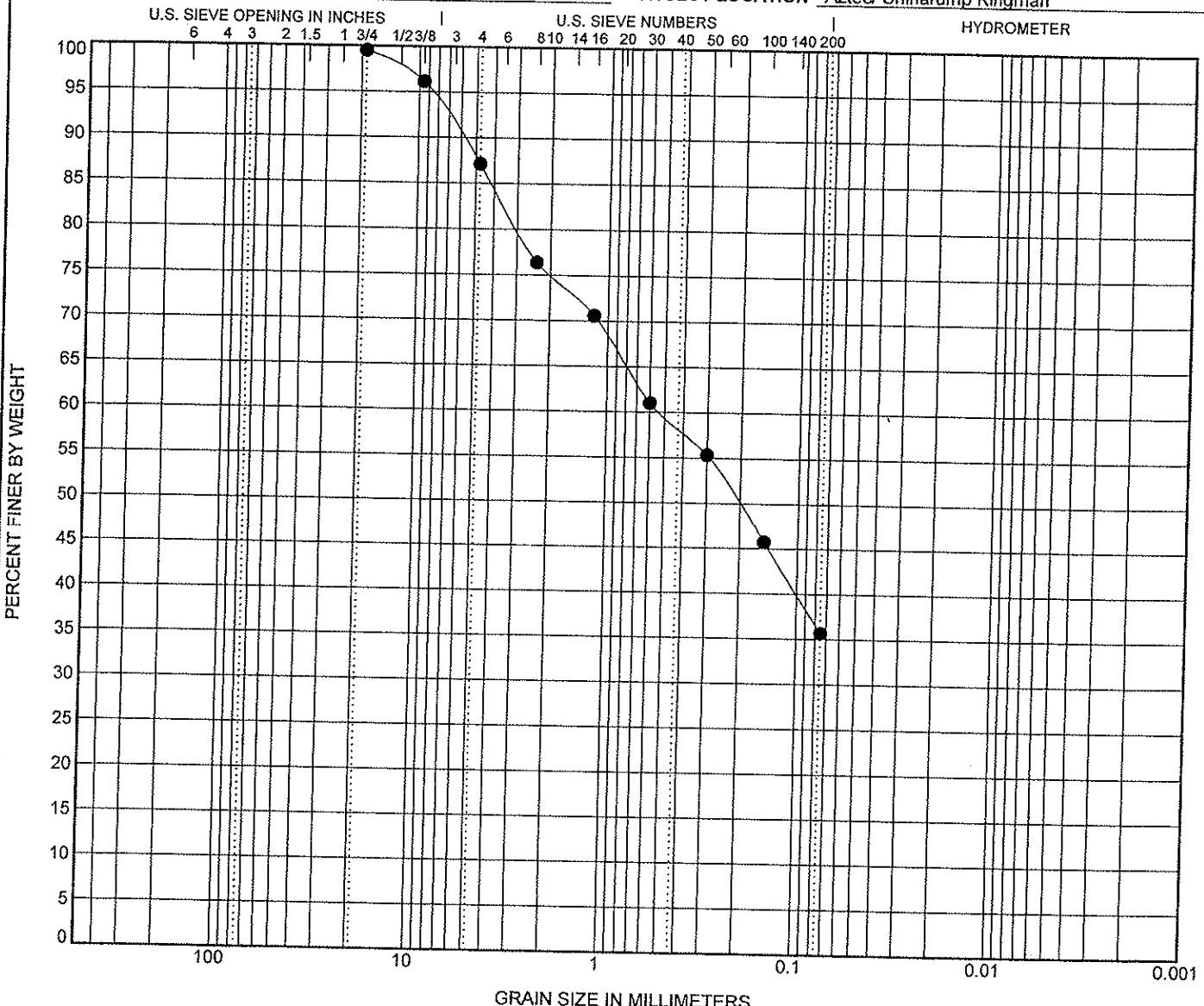
GRAIN SIZE DISTRIBUTION

CLIENT Rhodes Homes

PROJECT NUMBER PN-1060

PROJECT NAME Golden Valley Ranch Kingman

PROJECT LOCATION Aztec/ Shinarump Kingman



COBBLES	GRAVEL		SAND			SILT OR CLAY		
	coarse	fine	coarse	medium	fine			

Sieve Size	6"	3"	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4	#8	#10	#16	#30	#40	#50	#100	#200	
Percent Passing						100			96	87	76		71	61		55	46	36
Spec. %																		
Result																		

Specimen Identification			Classification						LL	PL	PI
Tp-3	2		SILTY SAND(SM)						22	19	3
Cc	Cu	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
		19	0.53			12.4	51.4		35.7		



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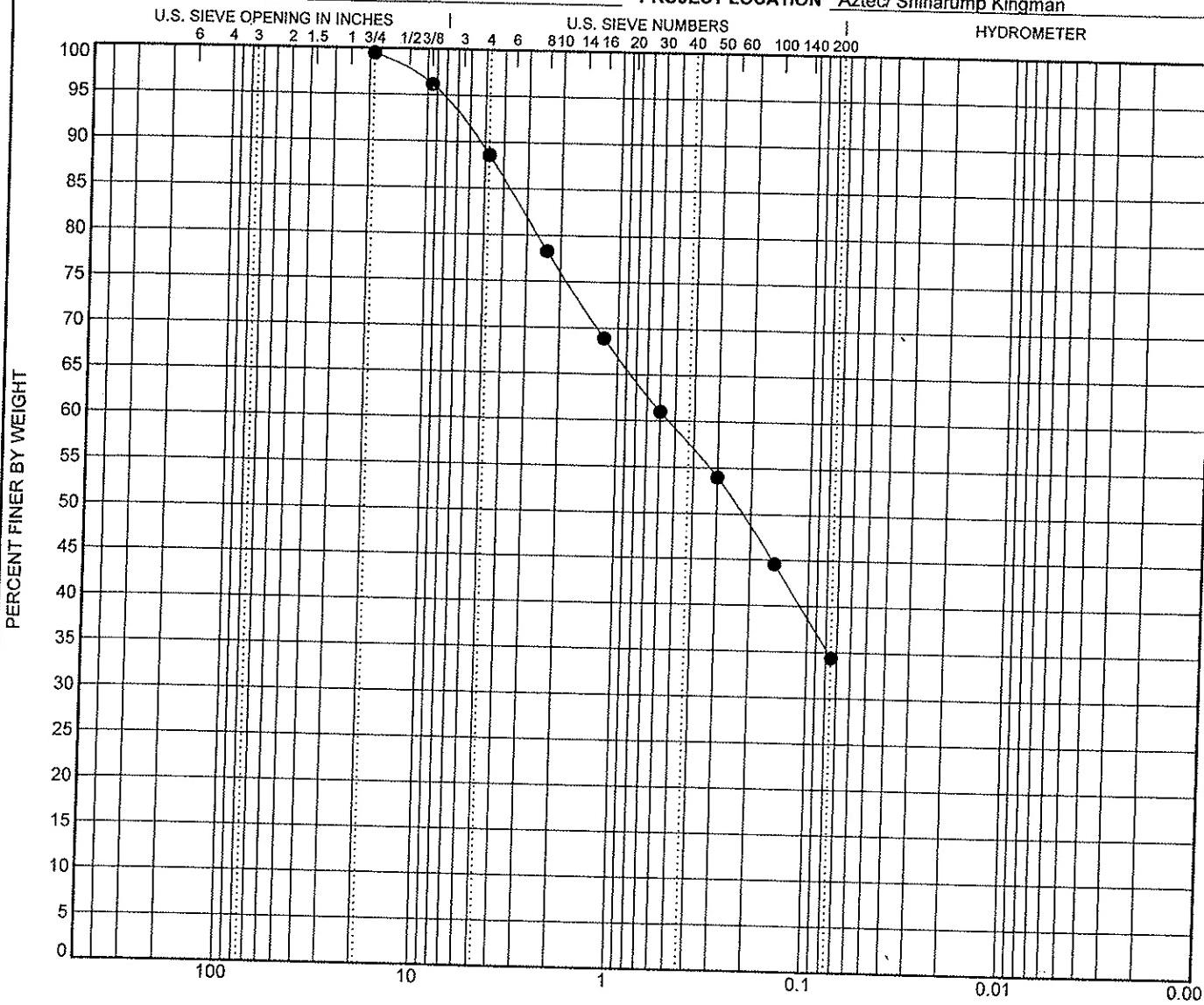
GRAIN SIZE DISTRIBUTION

CLIENT Rhodes Homes

PROJECT NUMBER PN-1060

PROJECT NAME Golden Valley Ranch Kingman

PROJECT LOCATION Aztec/ Shinarump Kingman



COBBLES	GRAVEL			SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine		

Sieve Size	6"	3"	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4	#8	#10	#16	#30	#40	#50	#100	#200
Percent Passing						99		96	89	78		69	61		54	45	34
Spec. %																	
Result																	

Specimen Identification			Classification						LL	PL	PI
Tp-7			SILTY SAND(SM)						NP	NP	NP
Cc	Cu	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
		19	0.544			10.9	54.2		34.4		



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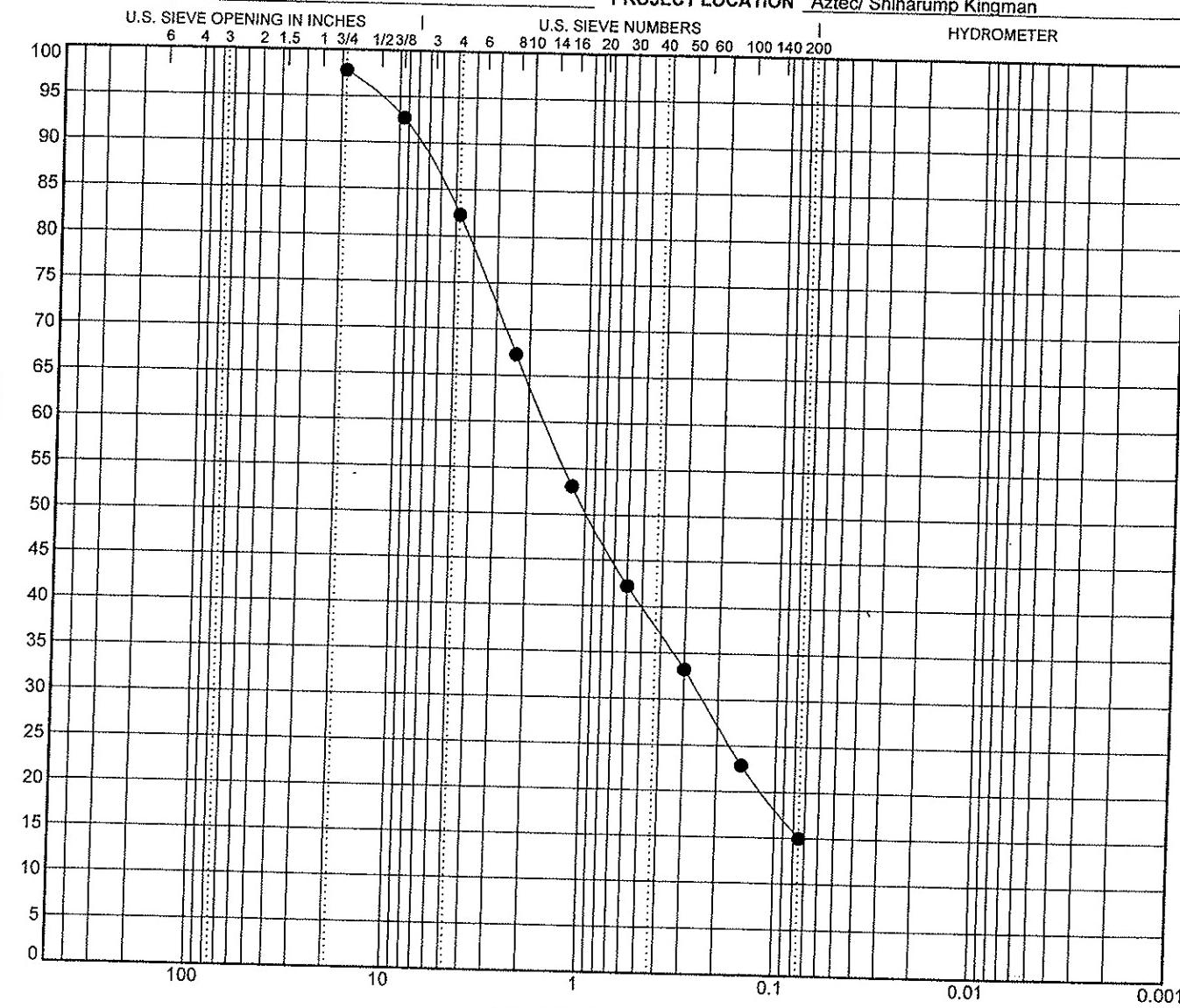
GRAIN SIZE DISTRIBUTION

CLIENT Rhodes Homes

PROJECT NUMBER PN-1060

PROJECT NAME Golden Valley Ranch Kingman

PROJECT LOCATION Aztec/ Shinarump Kingman



COBBLES	GRAVEL			SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine		

PAGER PAGE PN 1060 GPJ AMERICAN SOILS GDT 9/16/05

Sieve Size	6"	3"	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4	#8	#10	#16	#30	#40	#50	#100	#200
Percent Passing						98		93	82	67		53	42		33	23	15
Spec. %																	
Result																	

Specimen Identification		Classification							LL	PL	PI
Tp-8	2	SILTY SAND with GRAVEL(SM)							NP	NP	NP
Cc	Cu	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
		19	1.655	0.242		15.5	67.3	15.0			



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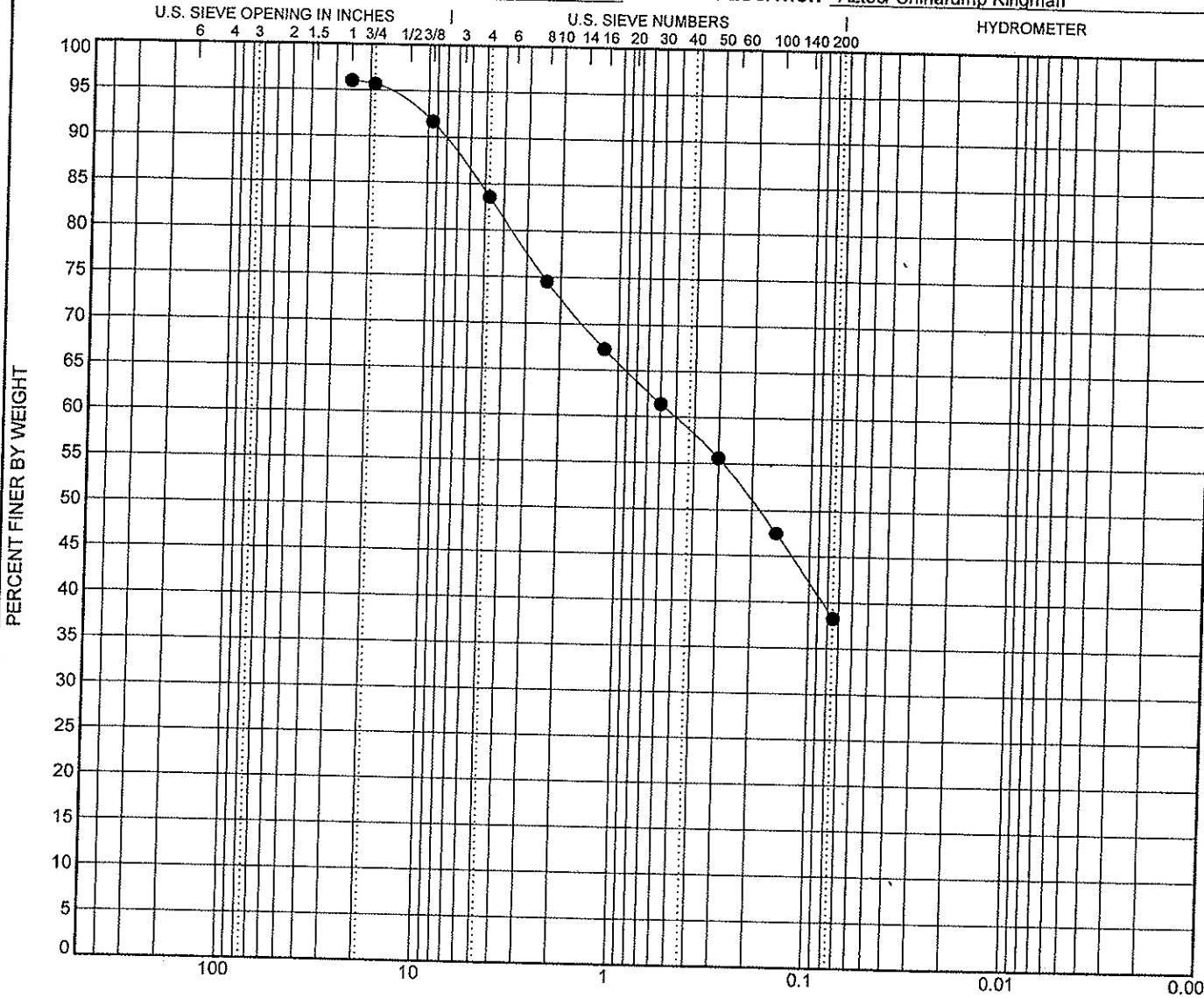
GRAIN SIZE DISTRIBUTION

CLIENT Rhodes Homes

PROJECT NUMBER PN-1060

PROJECT NAME Golden Valley Ranch Kingman

PROJECT LOCATION Aztec/ Shinarump Kingman



COBBLES	GRAVEL			SAND			SILT OR CLAY										
	coarse		fine	coarse	medium	fine											
Sieve Size	6"	3"	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4	#8	#10	#16	#30	#40	#50	#100	#200
Percent Passing					96	96		92	84	75		67	61		56	47	38
Spec. %																	
Result																	

PAPER PAGE PN 1060:GPJ AMERICAN SOILS.GDT 8/16/05

GRAIN SIZE

Specimen Identification			Classification						LL	PL	PI
1	Tp-9	2	SILTY, CLAYEY SAND with GRAVEL(SC-SM)						24	20	4
Cc	Cu	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay		
		25	0.507			12.5	45.3		38.3		



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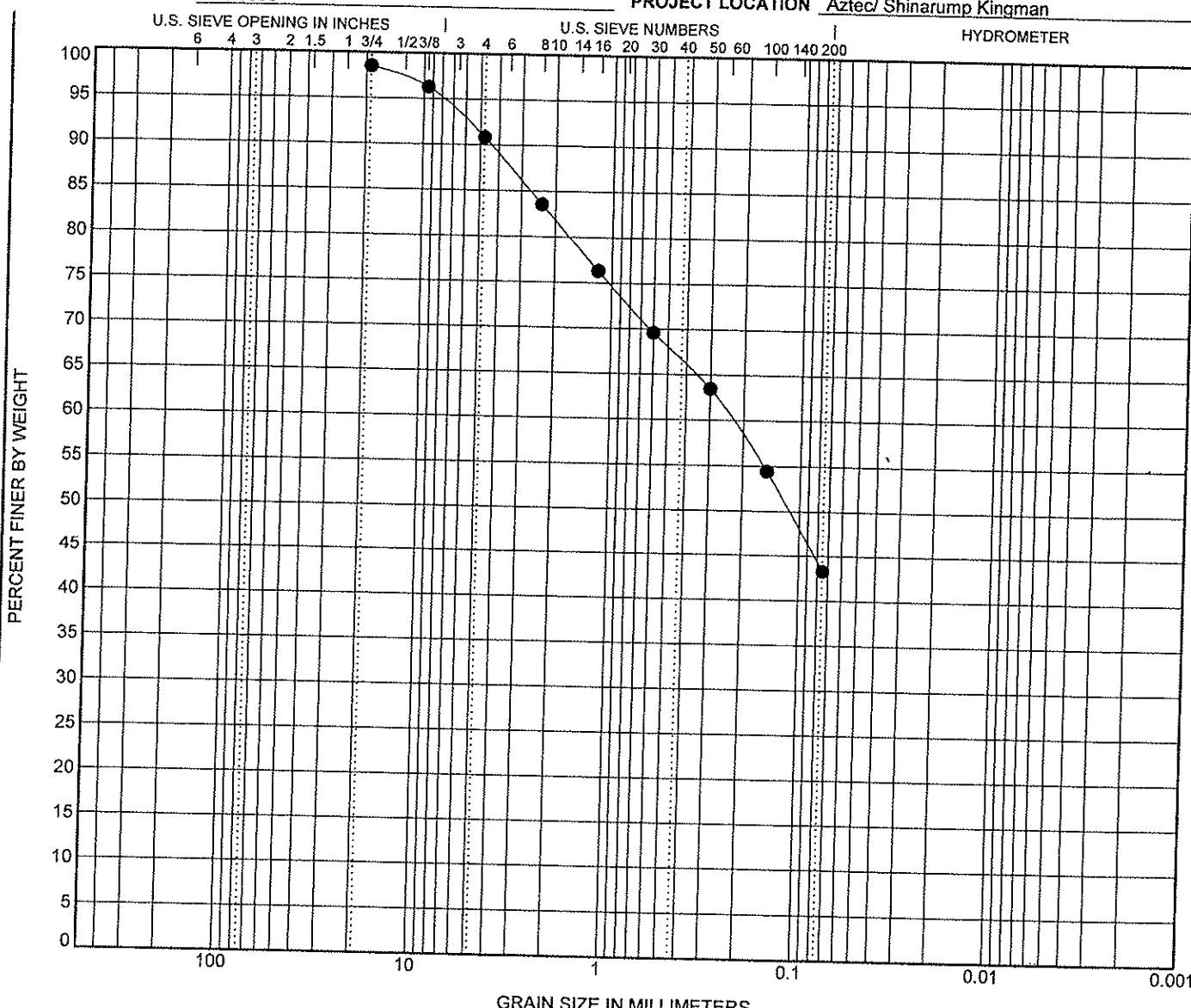
GRAIN SIZE DISTRIBUTION

CLIENT Rhodes Homes

PROJECT NUMBER PN-1060

PROJECT NAME Golden Valley Ranch Kingman

PROJECT LOCATION Aztec/ Shinarump Kingman



COBBLES	GRAVEL			SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine		

Sieve Size	6"	3"	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4	#8	#10	#16	#30	#40	#50	#100	#200
Percent Passing						99		96	91	84		76	70		63	54	43
Spec. %																	
Result																	

Specimen Identification		Classification						LL	PL	PI
Tp-10	2	SILTY SAND(SM)						22	19	3
Cc	Cu	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay	
		19	0.23			7.7	47.6		43.3	



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Fax: (702) 88-9614

MOISTURE-DENSITY RELATIONSHIP

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley Ranch, Kingman Arizona

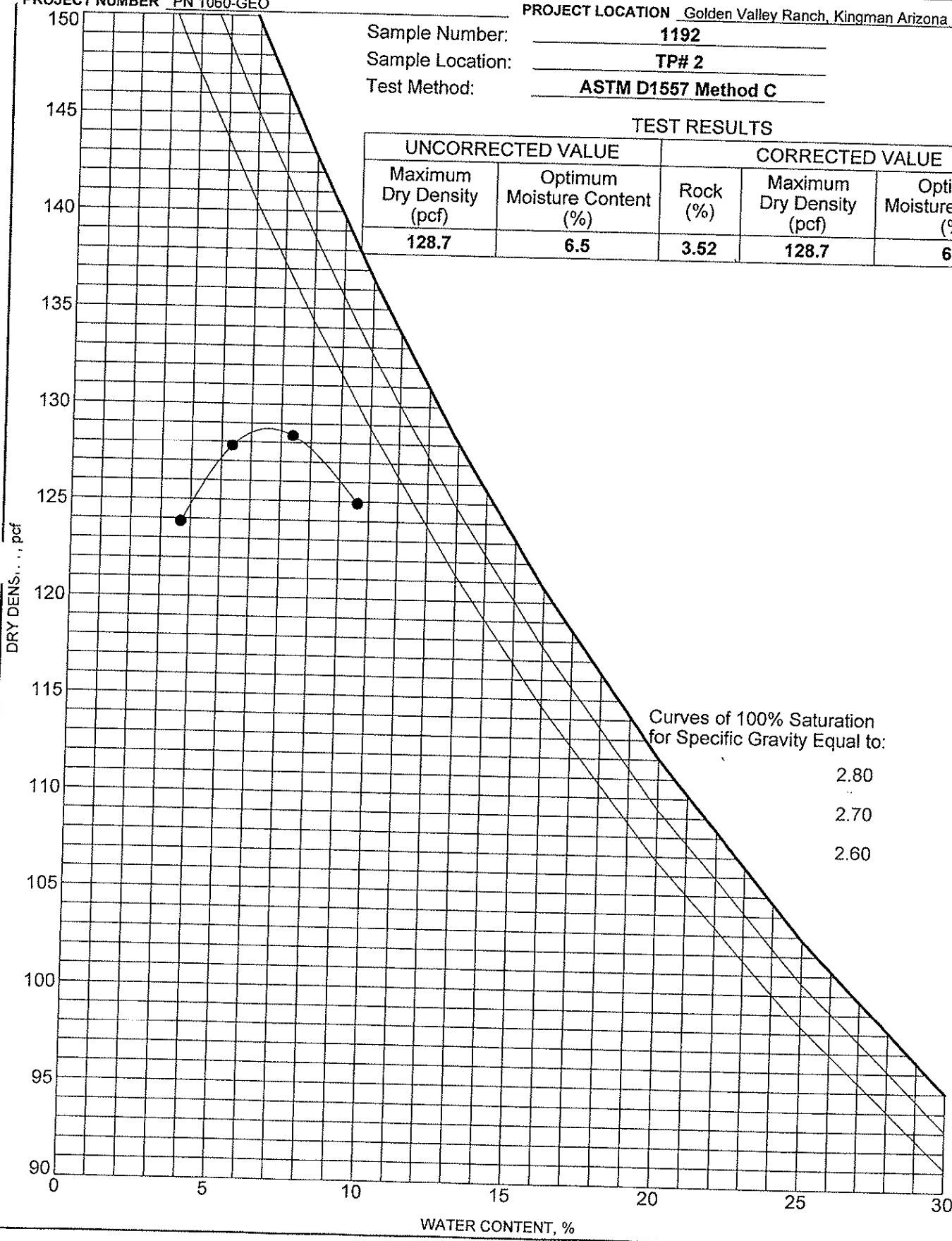
1192

TP# 2

ASTM D1557 Method C

TEST RESULTS

UNCORRECTED VALUE		CORRECTED VALUE		
Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Rock (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
128.7	6.5	3.52	128.7	6.5





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MOISTURE-DENSITY RELATIONSHIP

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley Ranch, Kingman Arizona

1193

TP#3

Sample Number:

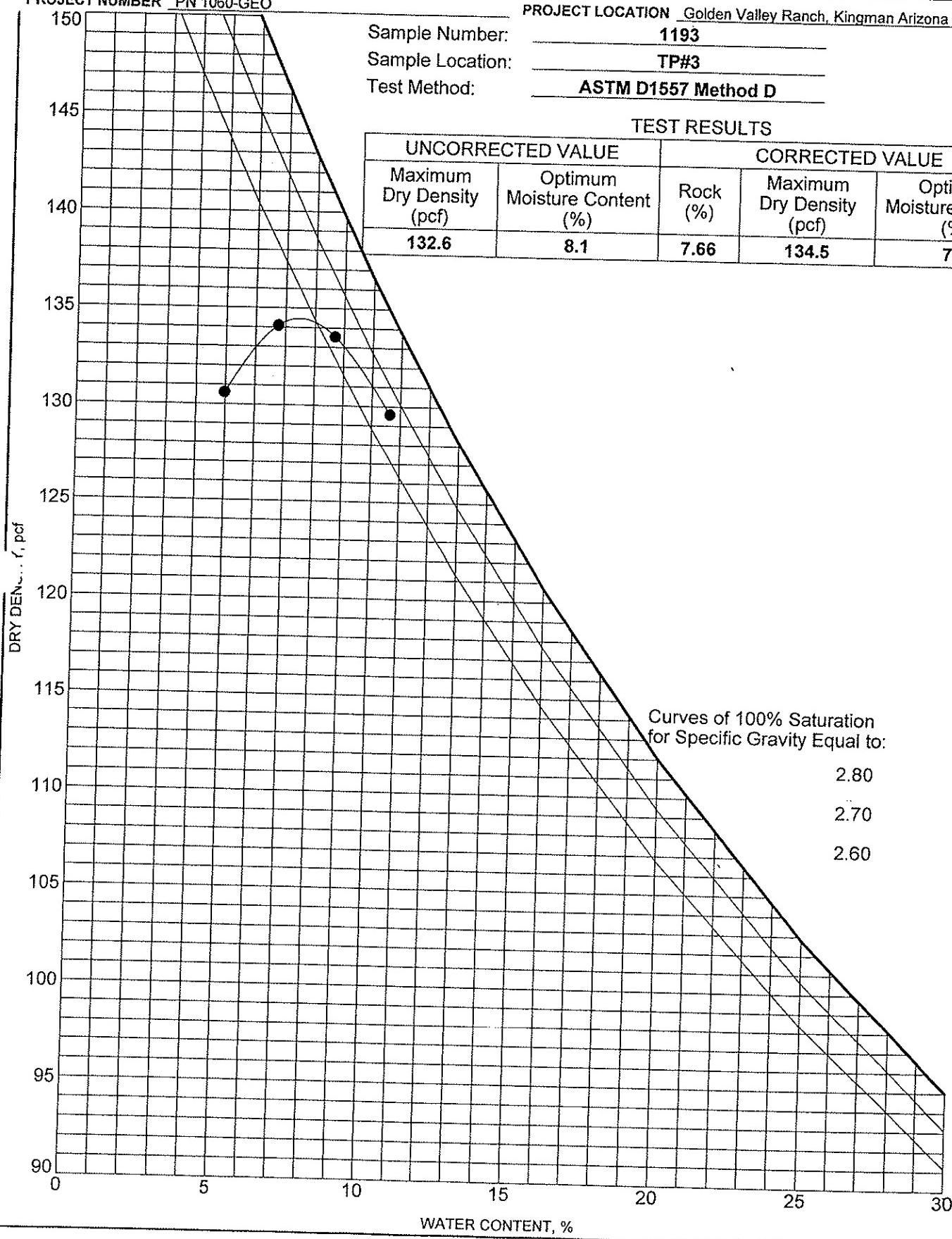
Sample Location:

Test Method:

ASTM D1557 Method D

TEST RESULTS

UNCORRECTED VALUE		CORRECTED VALUE		
Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Rock (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
132.6	8.1	7.66	134.5	7.5





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MOISTURE-DENSITY RELATIONSHIP

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley Ranch, Kingman Arizona

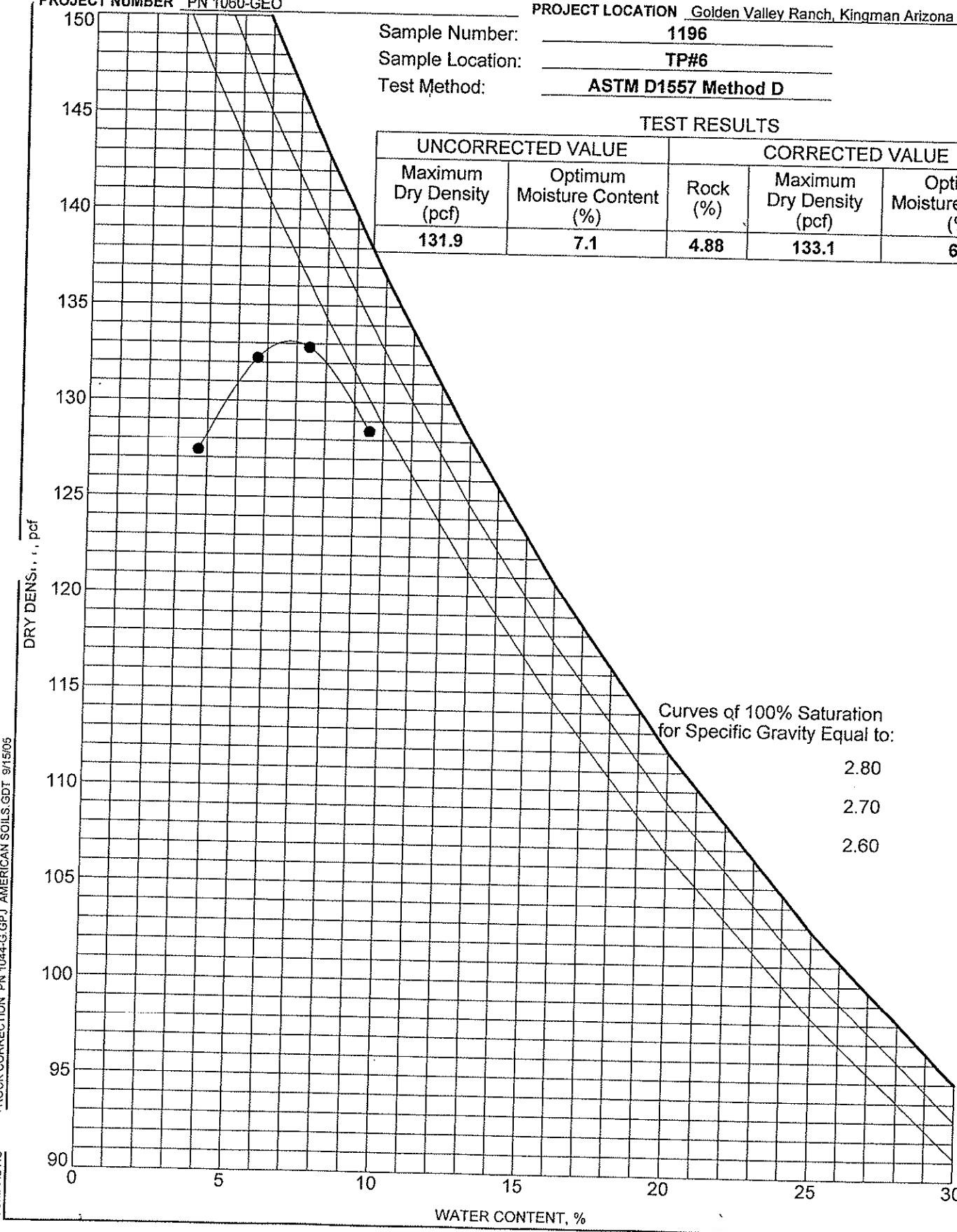
1196

TP#6

ASTM D1557 Method D

TEST RESULTS

UNCORRECTED VALUE		CORRECTED VALUE		
Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Rock (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
131.9	7.1	4.88	133.1	6.8





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MOISTURE-DENSITY RELATIONSHIP

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley Ranch, Kingman Arizona

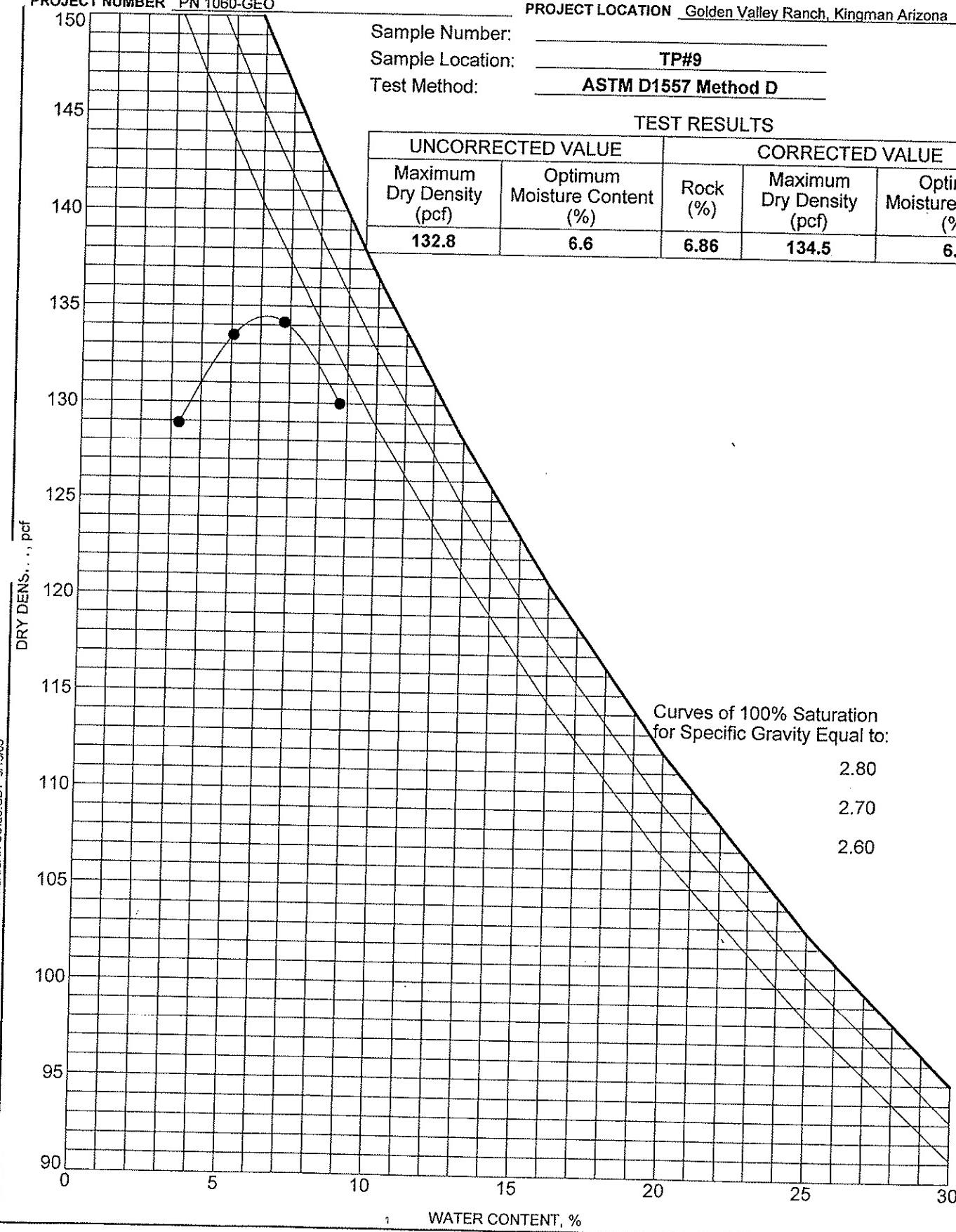
Sample Number:
Sample Location:
Test Method:

TP#9

ASTM D1557 Method D

TEST RESULTS

UNCORRECTED VALUE		CORRECTED VALUE		
Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Rock (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
132.8	6.6	6.86	134.5	6.1





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MOISTURE-DENSITY RELATIONSHIP

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley Ranch, Kingman Arizona

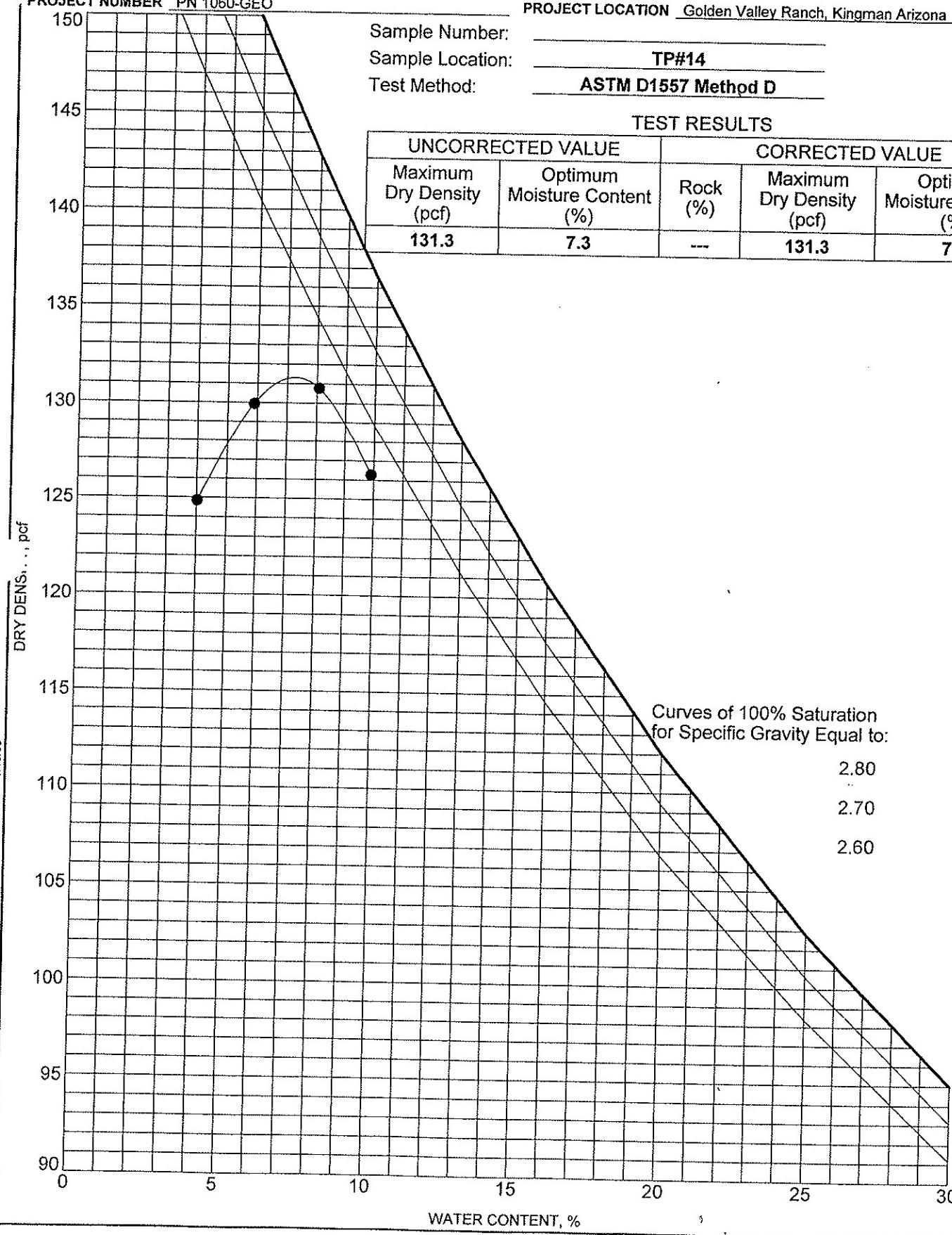
Sample Number:
Sample Location:
Test Method:

TP#14

ASTM D1557 Method D

TEST RESULTS

UNCORRECTED VALUE		CORRECTED VALUE		
Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Rock (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
131.3	7.3	---	131.3	7.3





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MOISTURE-DENSITY RELATIONSHIP

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley Ranch, Kingman Arizona

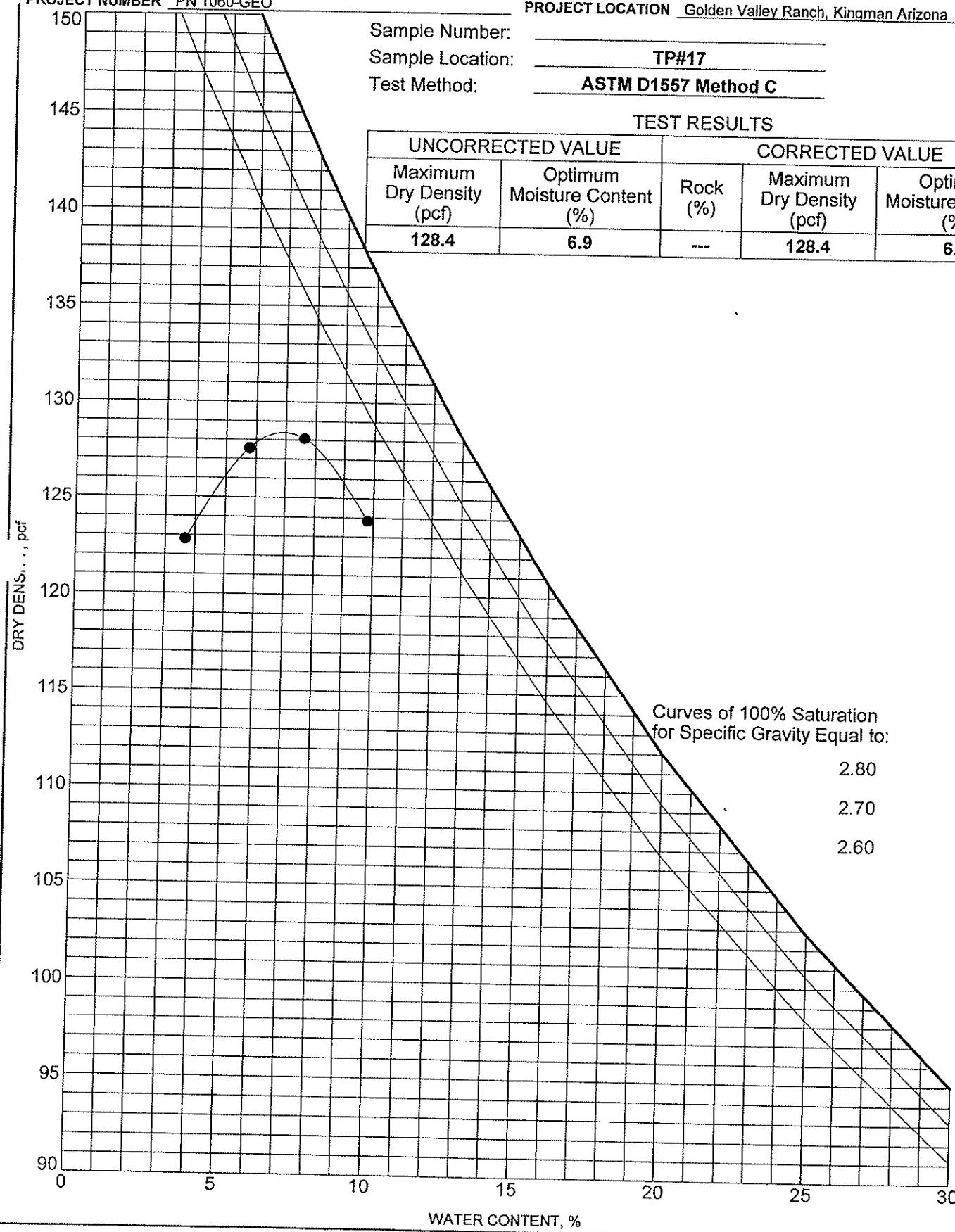
Sample Number:
Sample Location:
Test Method:

TP#17

ASTM D1557 Method C

TEST RESULTS

UNCORRECTED VALUE		CORRECTED VALUE		
Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Rock (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
128.4	6.9	---	128.4	6.9





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MOISTURE-DENSITY RELATIONSHIP

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley Ranch, Kingman Arizona

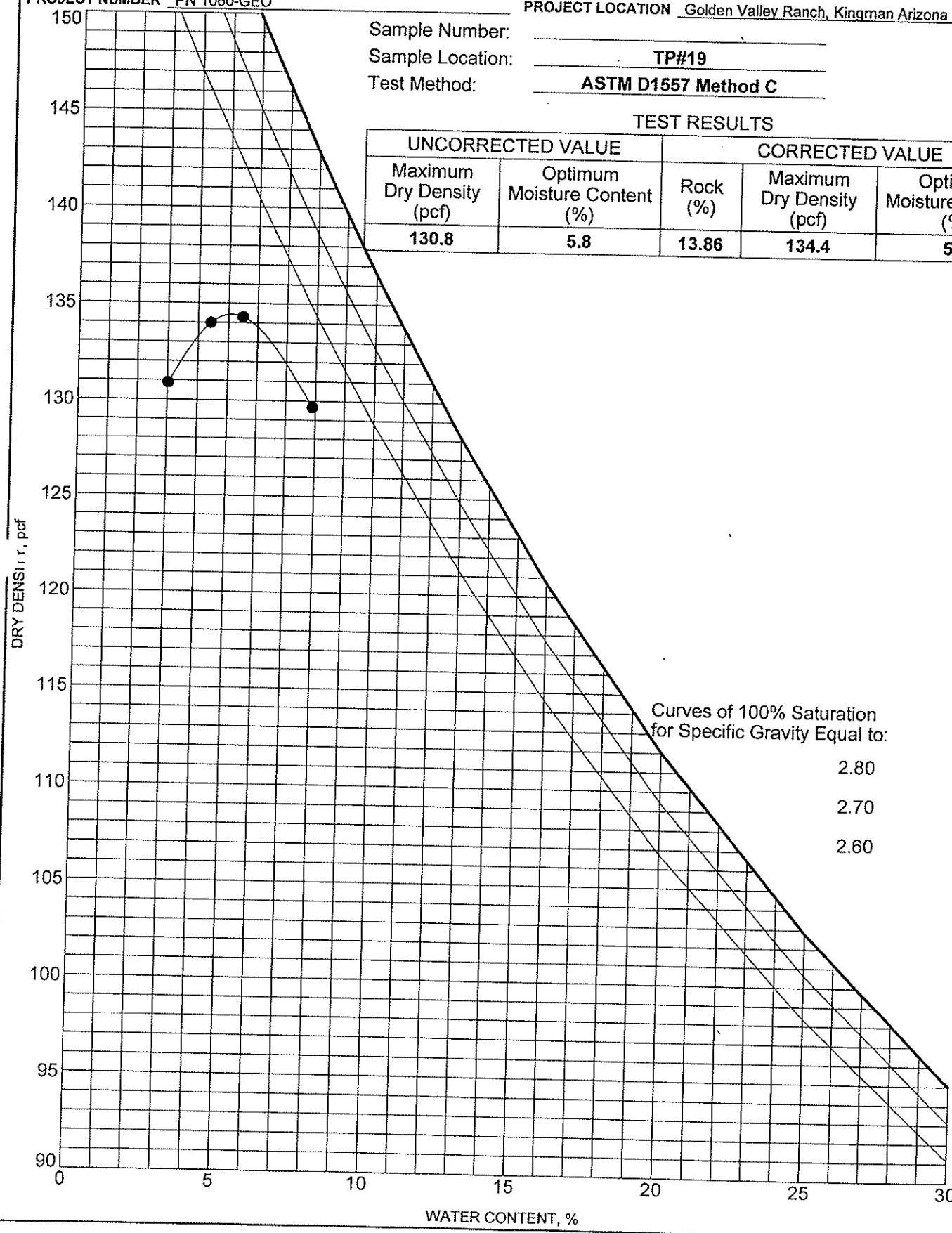
Sample Number:
Sample Location:
Test Method:

TP#19

ASTM D1557 Method C

TEST RESULTS

UNCORRECTED VALUE		CORRECTED VALUE		
Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Rock (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
130.8	5.8	13.86	134.4	5.1





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MOISTURE-DENSITY RELATIONSHIP

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley Ranch, Kingman Arizona

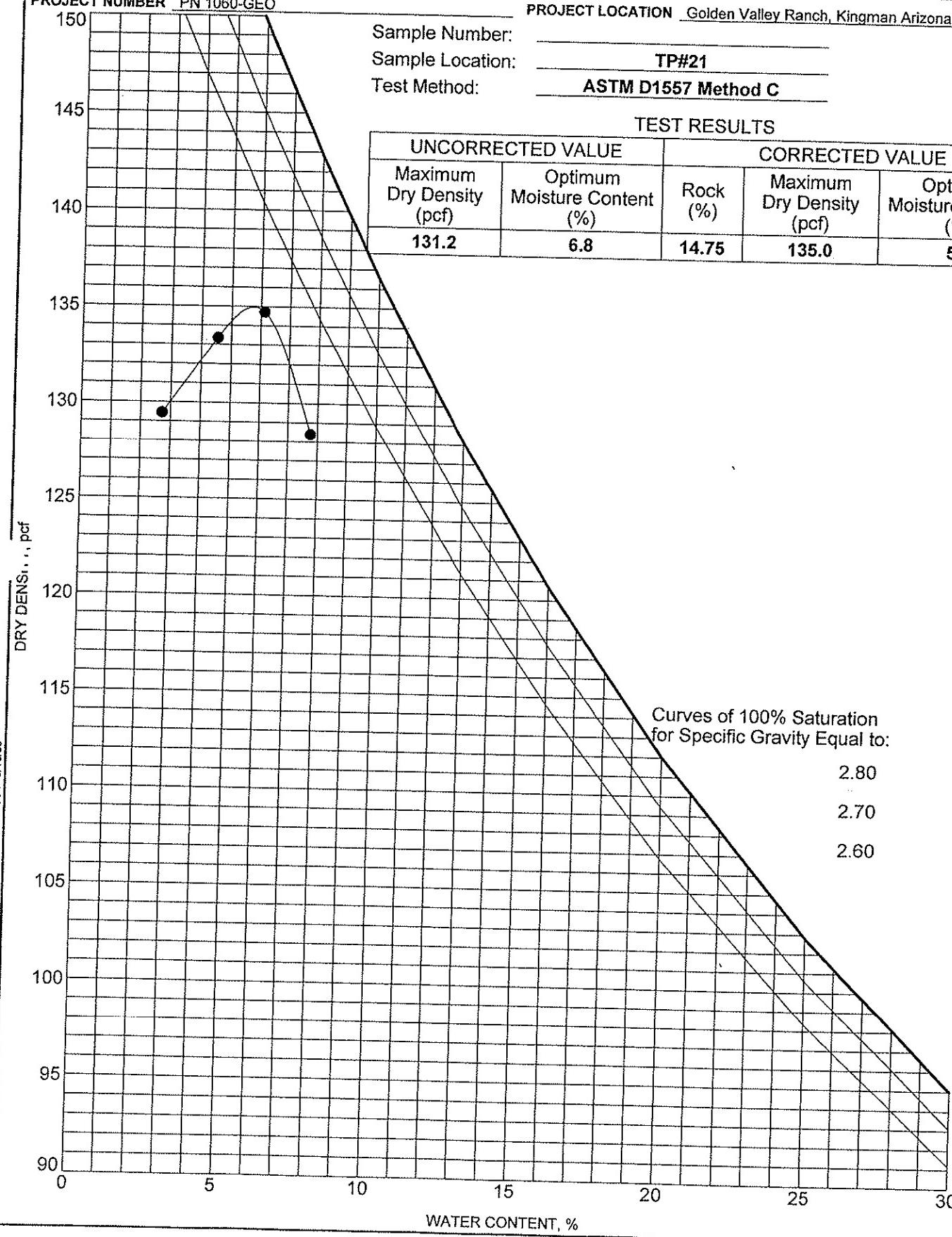
Sample Number:
Sample Location:
Test Method:

TP#21

ASTM D1557 Method C

TEST RESULTS

UNCORRECTED VALUE		CORRECTED VALUE		
Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Rock (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
131.2	6.8	14.75	135.0	5.8





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MOISTURE-DENSITY RELATIONSHIP

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley Ranch, Kingman Arizona

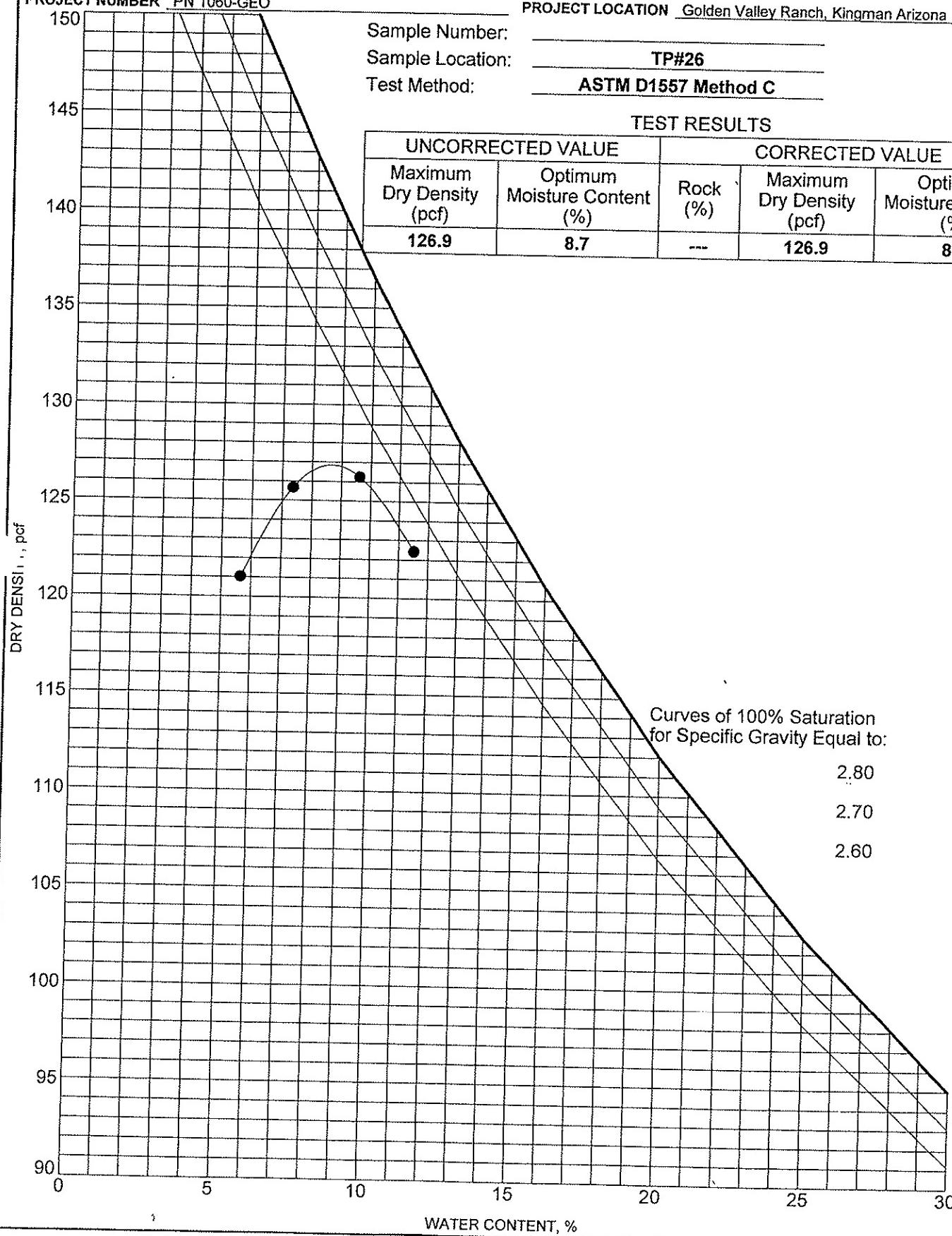
Sample Number:
Sample Location:
Test Method:

TP#26

ASTM D1557 Method C

TEST RESULTS

UNCORRECTED VALUE		CORRECTED VALUE	
Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Rock (%)	Maximum Dry Density (pcf)
126.9	8.7	---	126.9





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MOISTURE-DENSITY RELATIONSHIP

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley Ranch, Kingman Arizona

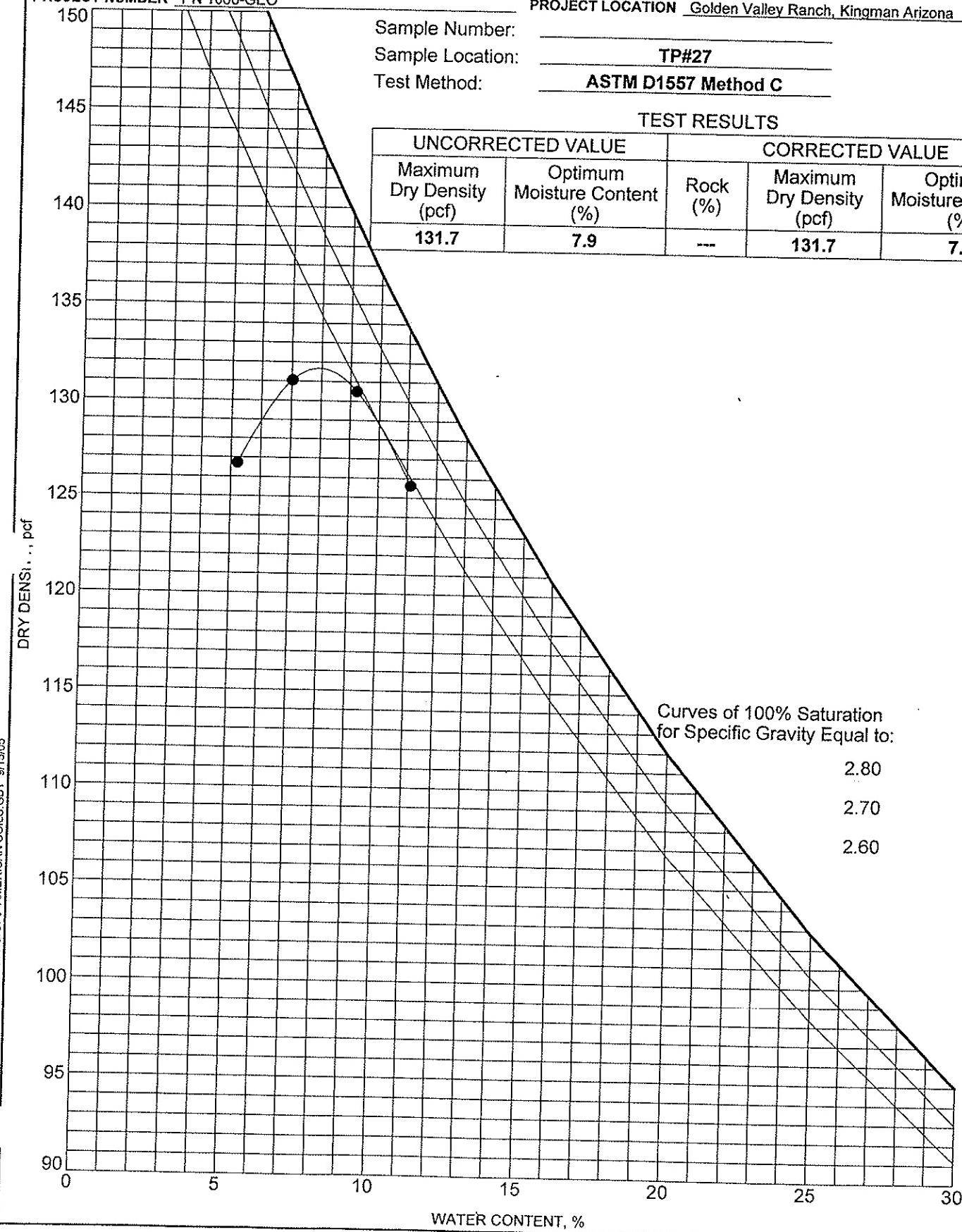
Sample Number:
Sample Location:
Test Method:

TP#27

ASTM D1557 Method C

TEST RESULTS

UNCORRECTED VALUE		CORRECTED VALUE		
Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Rock (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
131.7	7.9	---	131.7	7.9





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MOISTURE-DENSITY RELATIONSHIP

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley Ranch, Kingman Arizona

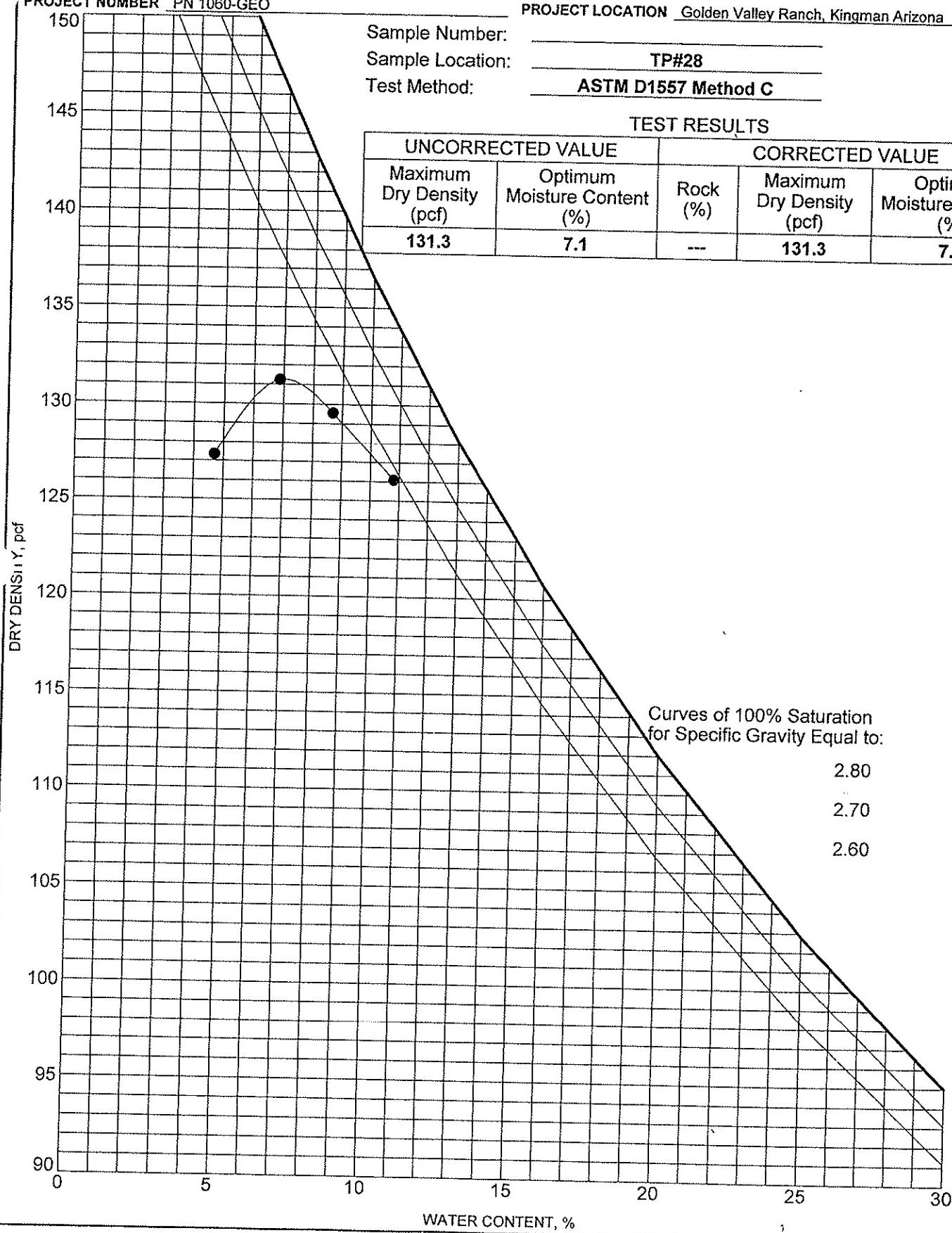
Sample Number:
Sample Location:
Test Method:

TP#28

ASTM D1557 Method C

TEST RESULTS

UNCORRECTED VALUE		CORRECTED VALUE		
Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Rock (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
131.3	7.1	---	131.3	7.1





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MOISTURE-DENSITY RELATIONSHIP

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley Ranch, Kingman Arizona

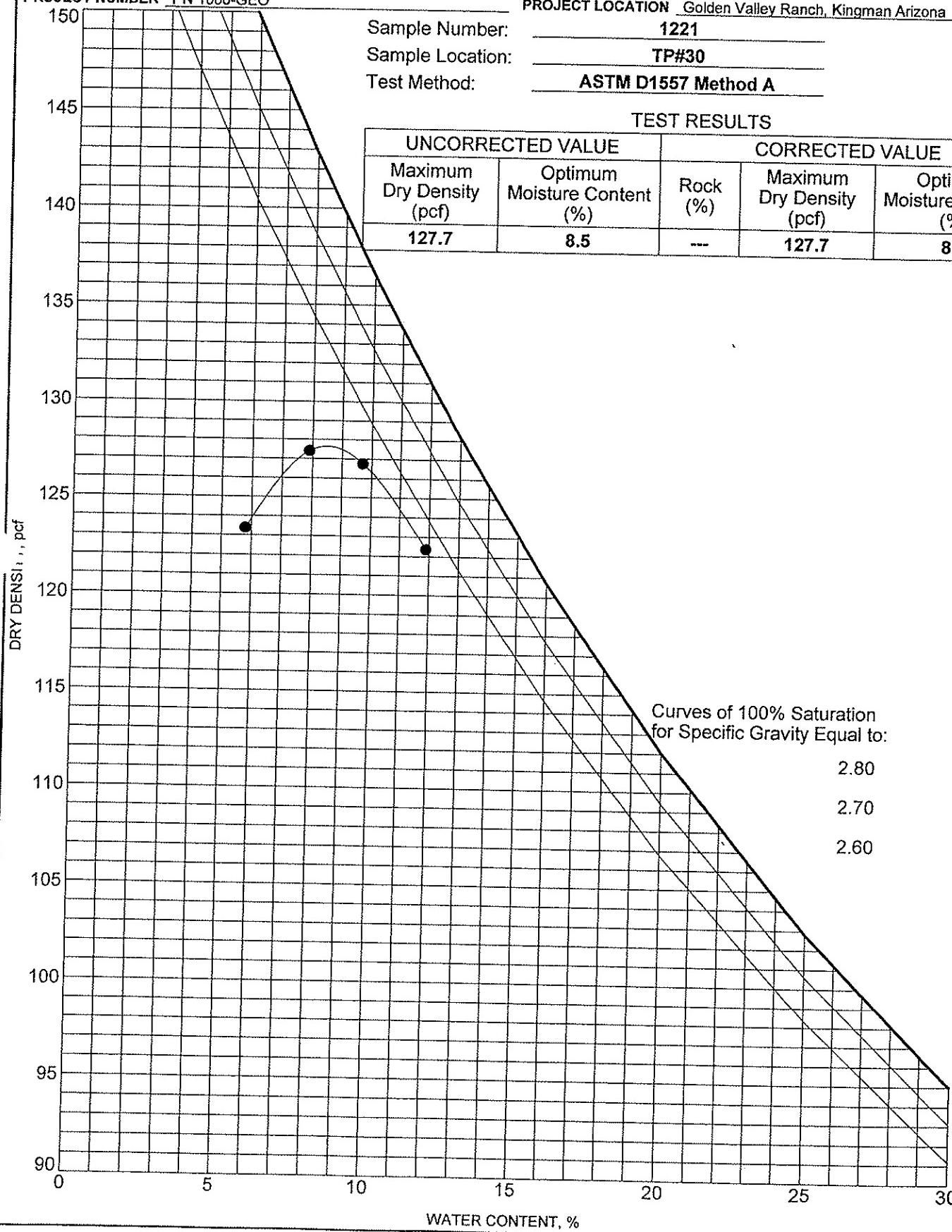
Sample Number: 1221

Sample Location: TP#30

Test Method: ASTM D1557 Method A

TEST RESULTS

UNCORRECTED VALUE		CORRECTED VALUE		
Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Rock (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
127.7	8.5	---	127.7	8.5





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MOISTURE-DENSITY RELATIONSHIP

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley Ranch, Kingman Arizona

Sample Number:

1225

Sample Location:

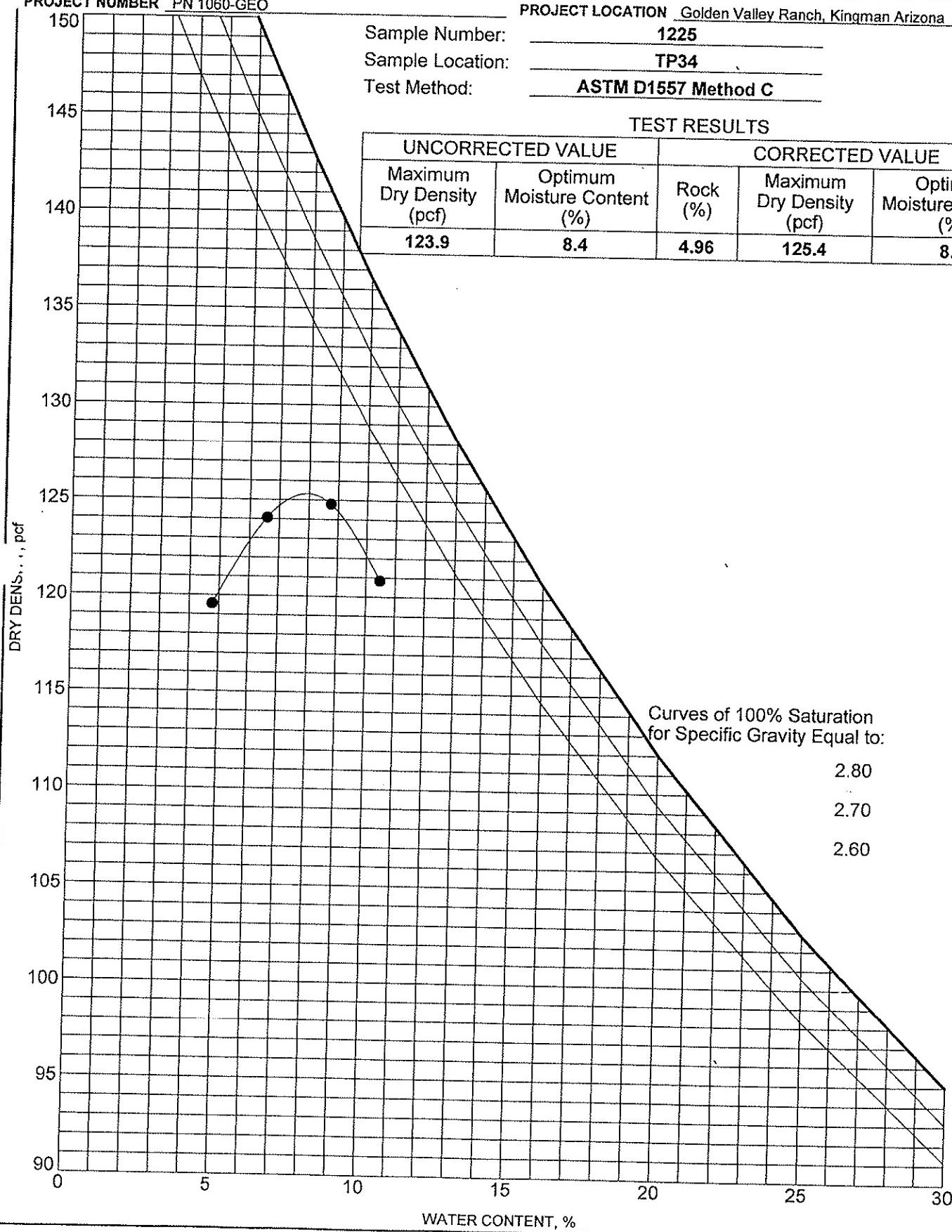
TP34

Test Method:

ASTM D1557 Method C

TEST RESULTS

UNCORRECTED VALUE		CORRECTED VALUE		
Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Rock (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
123.9	8.4	4.96	125.4	8.0





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MOISTURE-DENSITY RELATIONSHIP

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley Ranch, Kingman Arizona

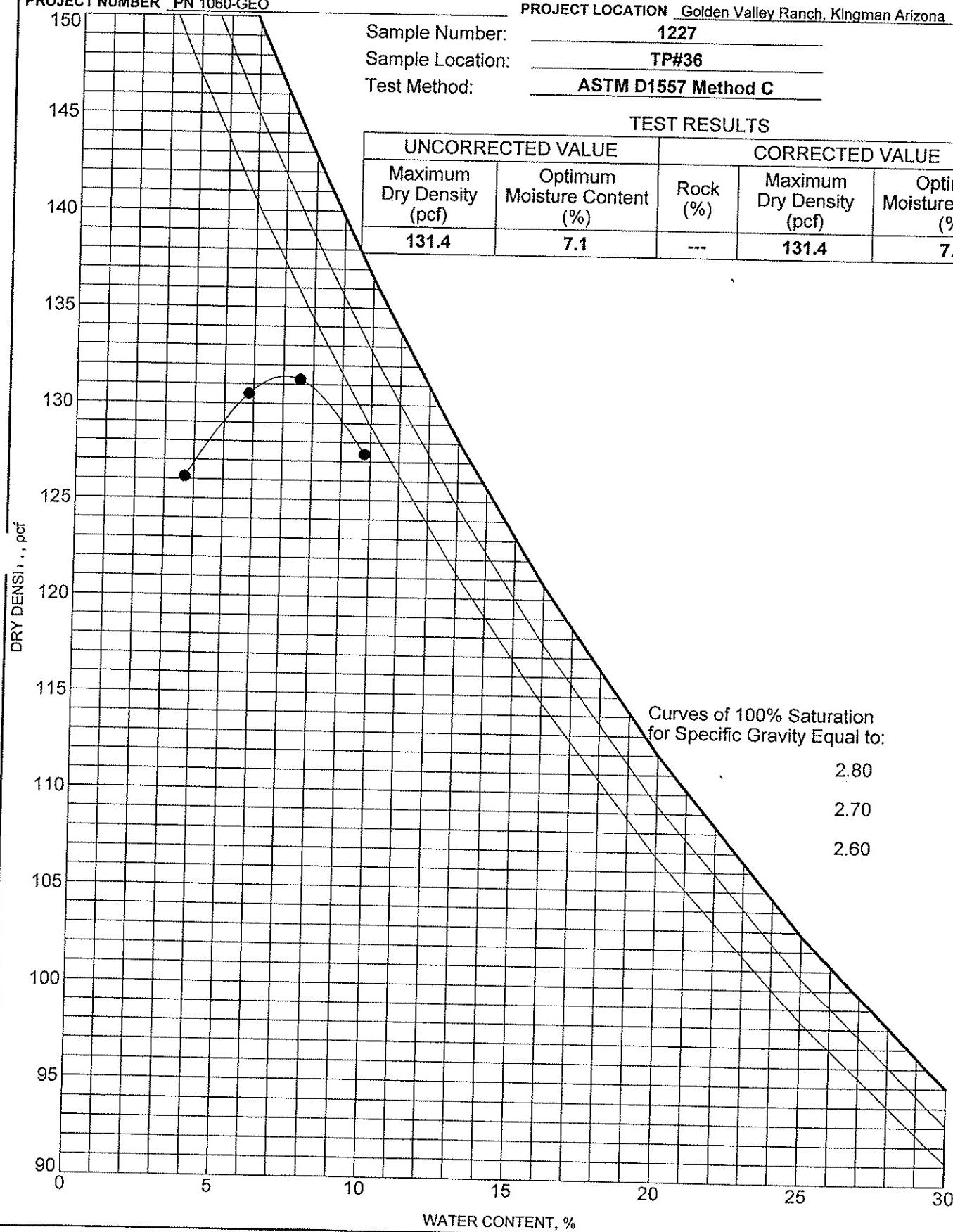
1227

TP#36

ASTM D1557 Method C

TEST RESULTS

UNCORRECTED VALUE		CORRECTED VALUE		
Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Rock (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
131.4	7.1	---	131.4	7.1





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MOISTURE-DENSITY RELATIONSHIP

CLIENT Rhodes Homes of Arizona

PROJECT NUMBER PN 1060-GEO

PROJECT NAME Phase I at Golden Valley Ranch

PROJECT LOCATION Golden Valley Ranch, Kingman Arizona

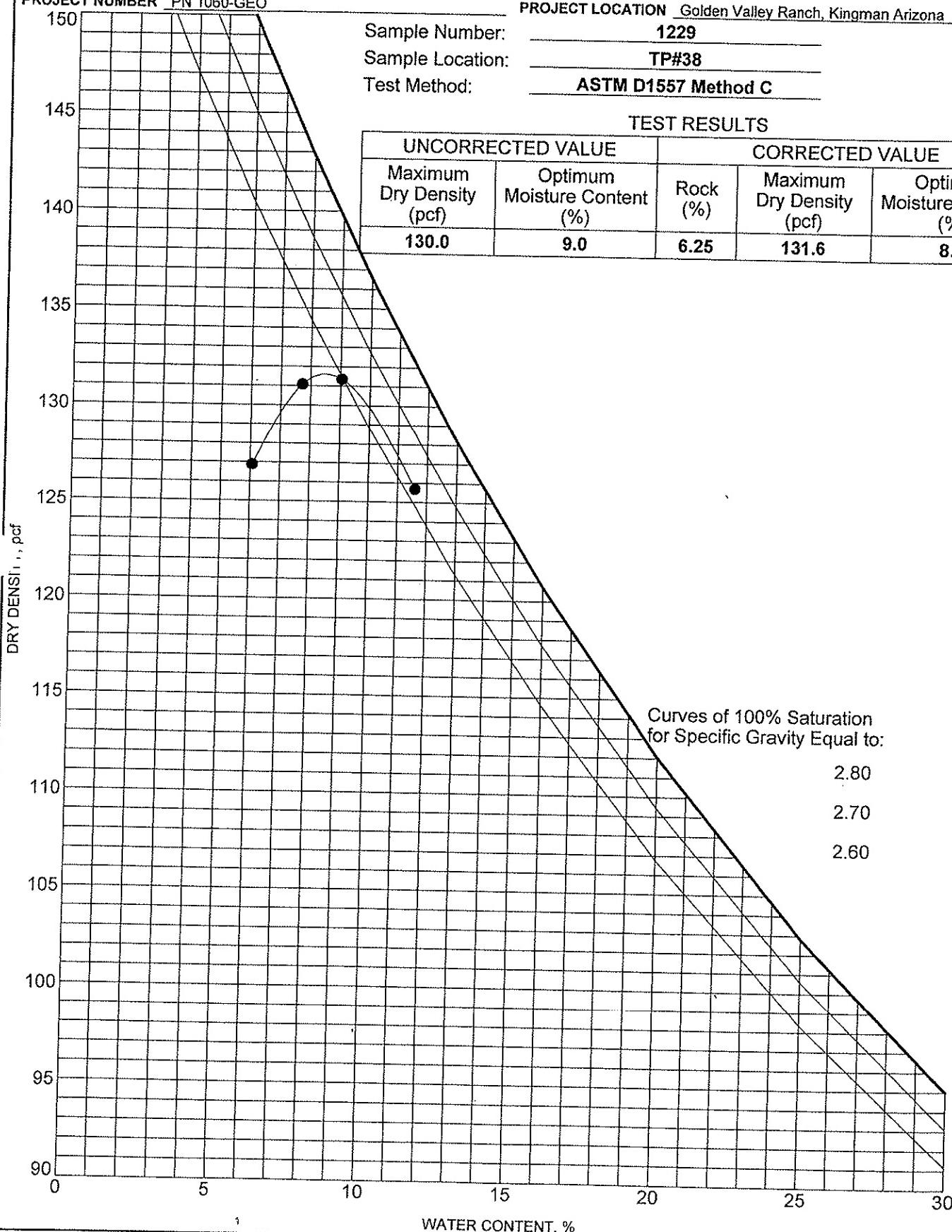
1229

TP#38

ASTM D1557 Method C

TEST RESULTS

UNCORRECTED VALUE		CORRECTED VALUE		
Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Rock (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
130.0	9.0	6.25	131.6	8.5





Las Vegas Laboratory
Kleinfelder
6380 South Polaris Avenue
Las Vegas, NV 89118

Telephone: (702) 736 2936
Facsimile: (702) 361 9094

Report No: RV:LVS05/00462

Issue No: 1

R Value Test Report

Client:	American Soils Engineering 6000 S. Eastern Ave. Ste 12E Las Vegas NV 89119 USA	 Member ACIL, QUESTLab No. 1078	All reports are submitted as the confidential property of our clients and authorization for publication of statements, conclusions or extracts from or regarding our reports are reserved pending our written approval <i>Michael Olson</i>
Project:	Misc Lab Testing		By: Mike Olson (Materials Department Manager) Date of Issue: 9/9/05

Sample Details

Sample ID: LVS05/00462
Field Sample: 28320
Date Sampled: 8/31/05
Source:
Material:
Specification:
Location: TP1@2', TP4@2', TP10@5'
Sampled From:

Test Results

Description	Result	Limits
R Value @ 300 psi Exudation	63	

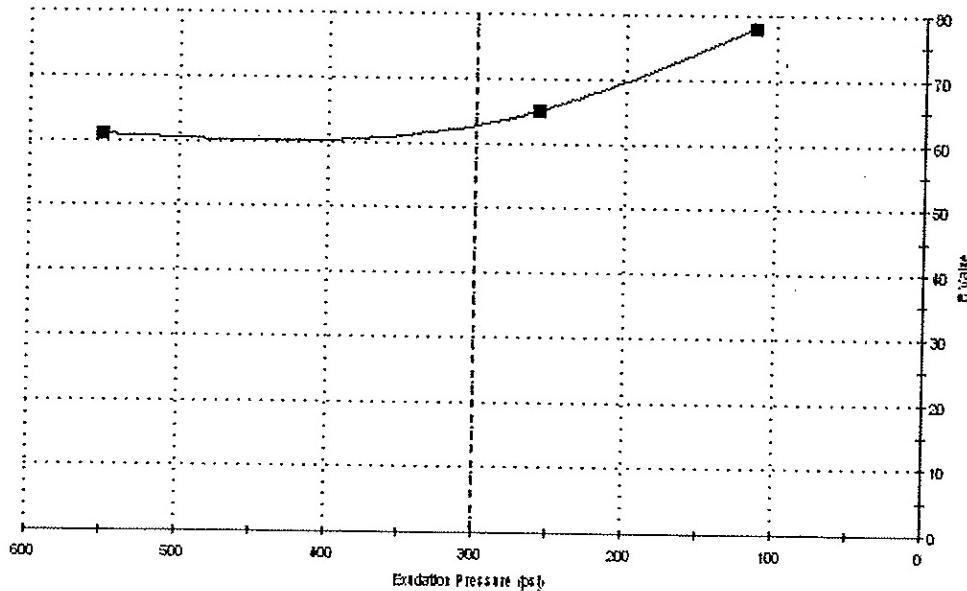
Soil Classification

Symbol
Name

R Value

Method: ASTM D 2844
Description: Standard Test Method for Resistance R-Value and Expansion Pressure of Compacted Soils

Chart



Comments

N/A



Las Vegas Laboratory

Kleinfelder
6380 South Polaris Avenue
Las Vegas, NV 89118Telephone: (702) 736 2936
Facsimile: (702) 361 9094

Report No: RV:LVS05/00462

Issue No: 1

R Value Test Report

Client:	American Soils Engineering 6000 S. Eastern Ave. Ste 12E Las Vegas NV 89119 USA	 Member ACIL QUESTLab No. 1078	All reports are submitted as the confidential property of our clients and authorization for publication of statements, conclusions or extracts from or regarding our reports are reserved pending our written approval  By: Mike Olson (Materials Department Manager) Date of Issue: 9/9/05
Project:	Misc Lab Testing		

Sample Details

Sample ID: LVS05/00462
 Field Sample: 28320
 Date Sampled: 8/31/05
 Source:
 Material:
 Specification:
 Location: TP1@2', TP4@2', TP10@5'
 Sampled From:

Test Results

Description	Result	Limits
R Value @ 300 psi Exudation	23	

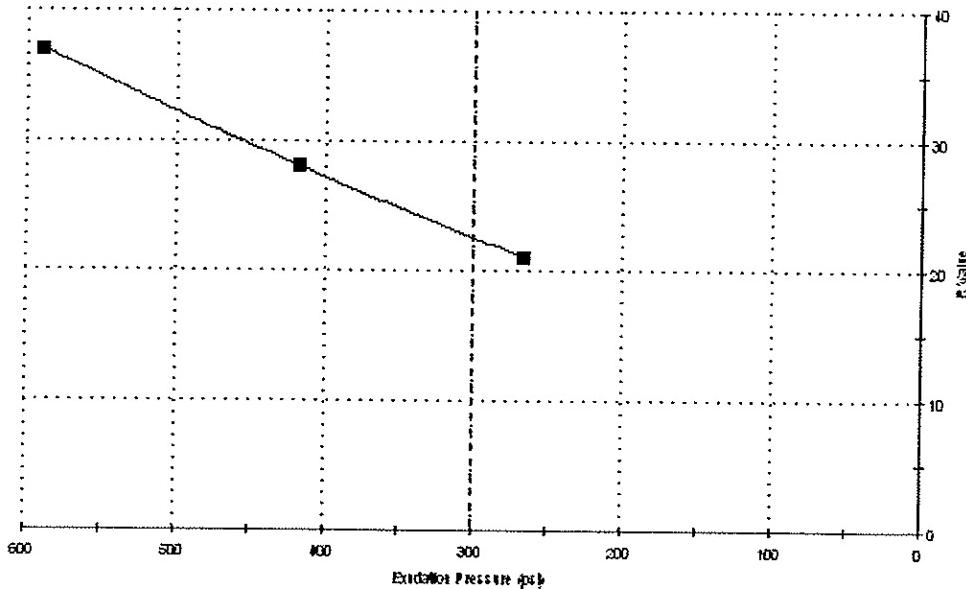
Soil Classification

Symbol
 Name

R Value

Method: ASTM D 2844
 Description: Standard Test Method for Resistance R-Value and Expansion Pressure of Compacted Soils

Chart



Comments

N/A



KLEINFELDER
An employee owned company

Las Vegas Laboratory
Kleinfelder
6380 South Polaris Avenue
Las Vegas, NV 89118

Telephone: (702) 736 2936
Facsimile: (702) 361 9094

R Value Test Report

Report No: RV:LVS05/00462

Issue No: 1

Client: American Soils Engineering
6000 S. Eastern Ave. Ste 12E
Las Vegas NV 89119
USA

Project: Misc Lab Testing



All reports are submitted as the confidential property of our clients and authorization for publication of statements, conclusions or extracts from or regarding our reports are reserved pending our written approval.

Michael Olson

Member ACIL
QUESTLab No. 1078

By: Mike Olson (Materials Department Manager)
Date of Issue: 9/9/05

Sample Details

Sample ID: LVS05/00462

Field Sample: 28320

Date Sampled: 8/31/05

Source:

Material:

Specification:

Location: TP1@2', TP4@2', TP10@5'

Sampled From:

Test Results

Description	Result	Limits
R Value @ 300 psi Exudation	27	

Soil Classification

Symbol

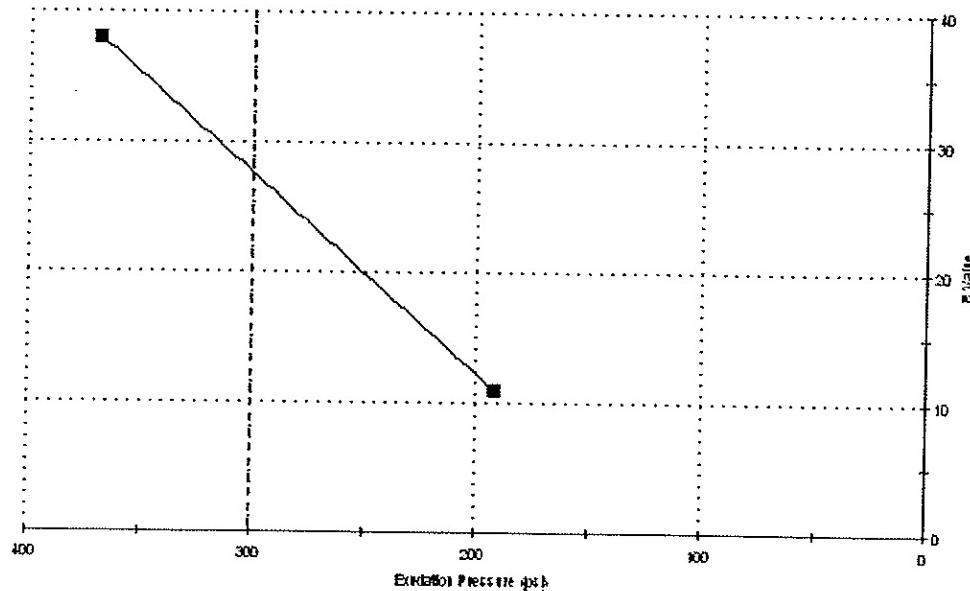
Name

R Value

Method: ASTM D 2844

Description: Standard Test Method for Resistance R-Value and Expansion Pressure of Compacted Soils

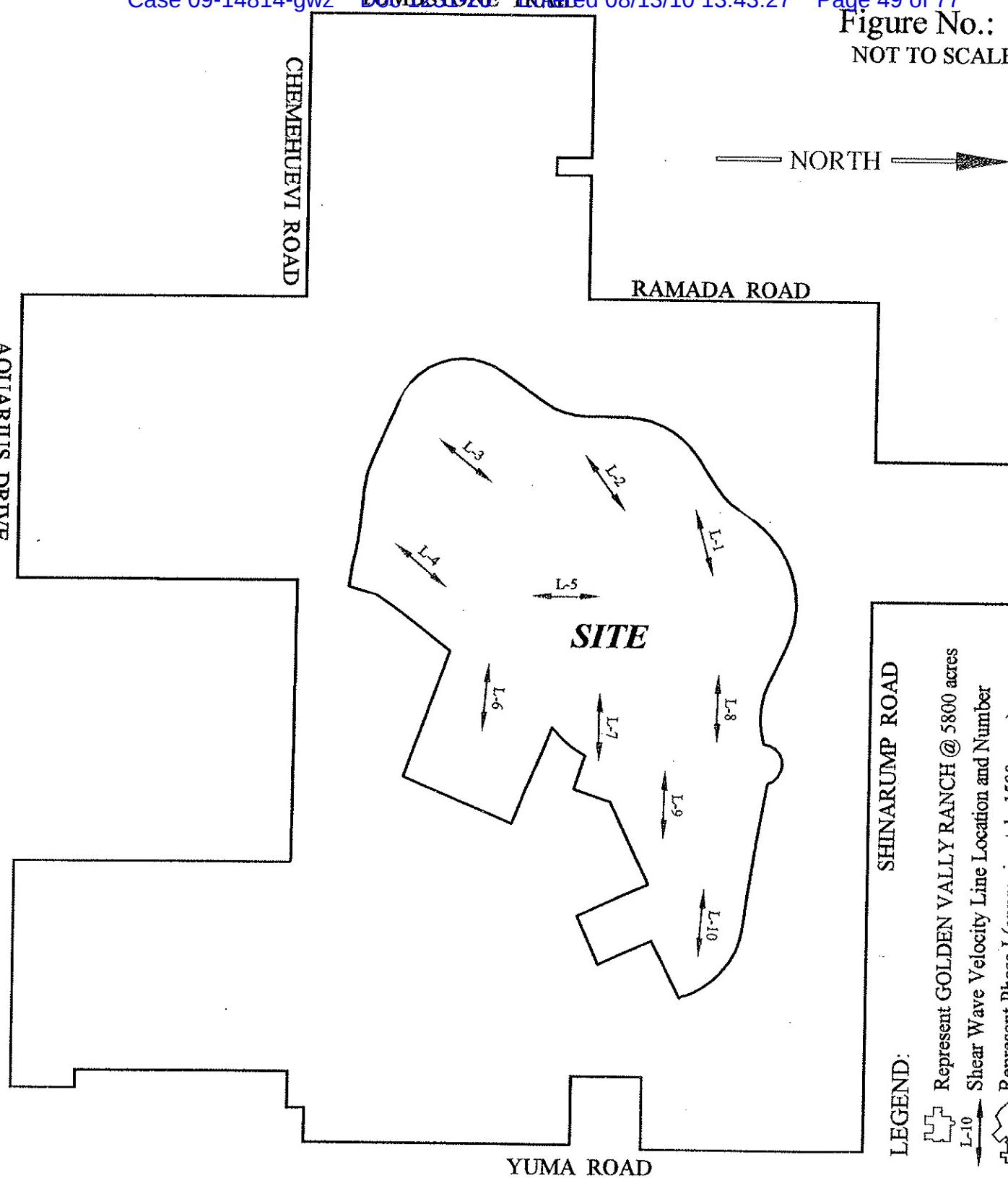
Chart



Comments

N/A

APPENDIX C

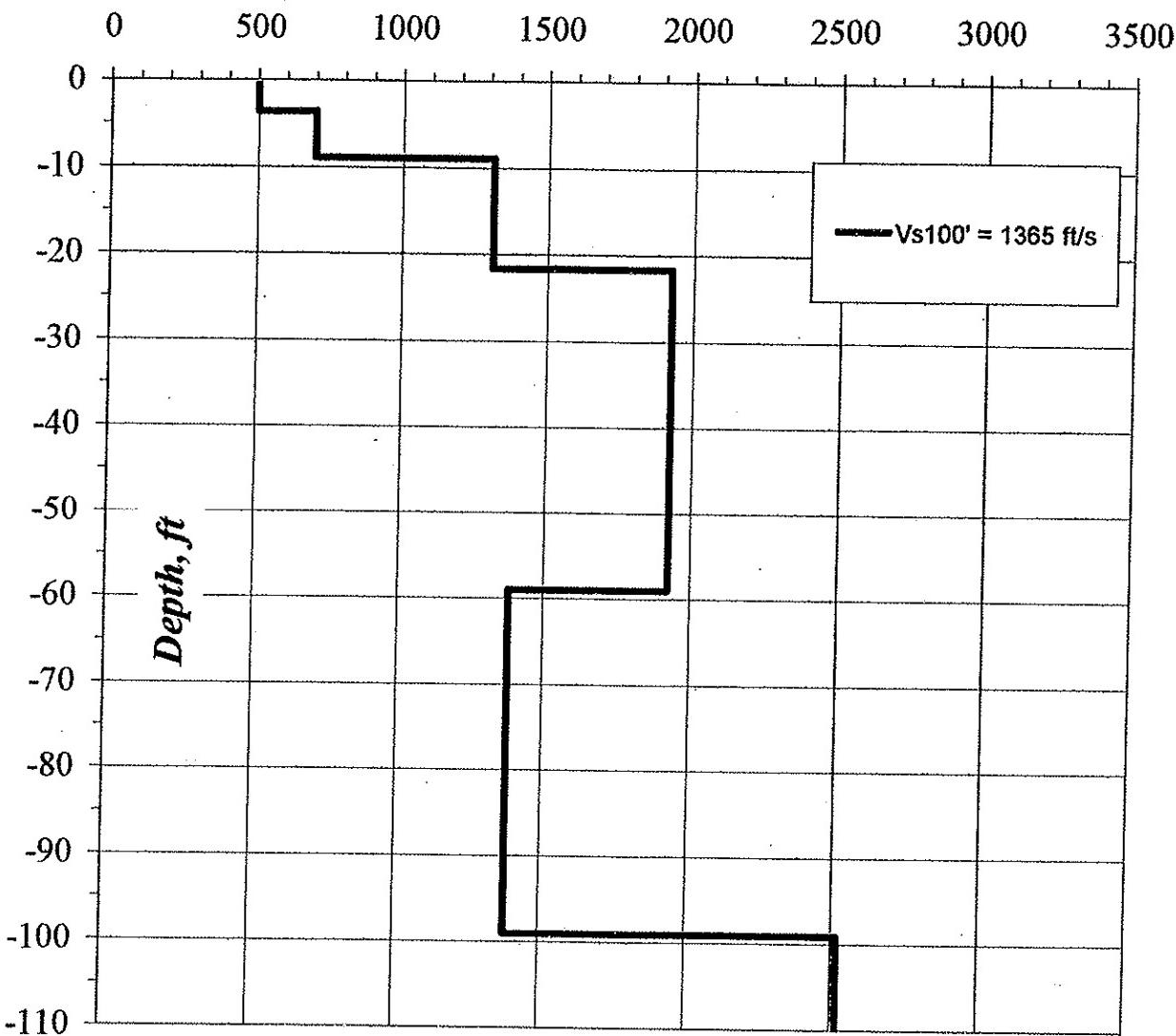
**LEGEND:**

- Represent GOLDEN VALLEY RANCH @ 5800 acres
- Shear Wave Velocity Line Location and Number
- Represent Phase I (approximately 1500 acres)



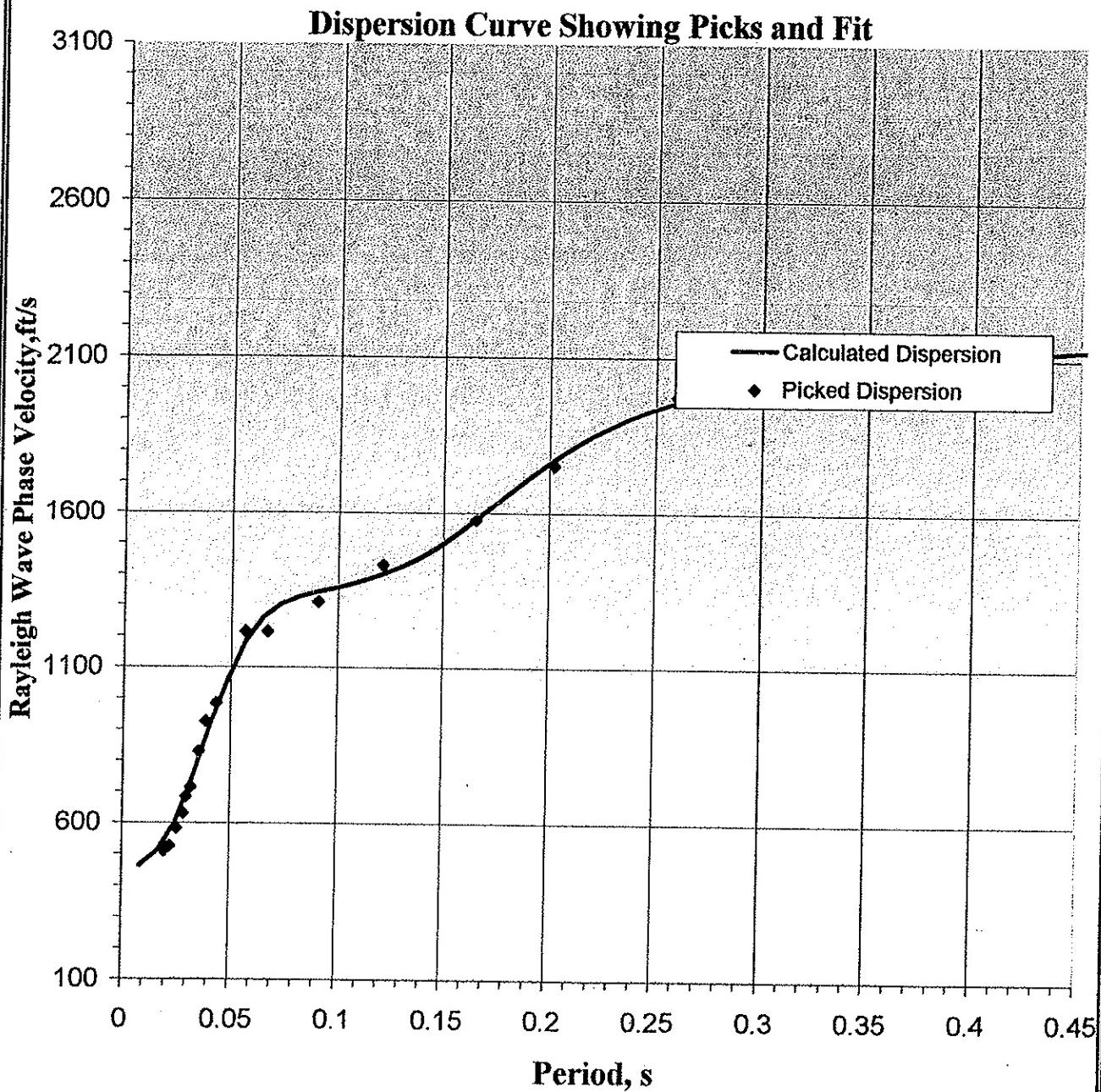
Shear Wave Velocity Test Location Map		Project Number: PN 1060-GEO
Project Phase I of Golden Valley Ranch Kingman - Arizona		Date: 09-09-2005
Prepared for Rhodes Homes of Arizona		Drawn By: QB

PN 1060.1: Vs Model



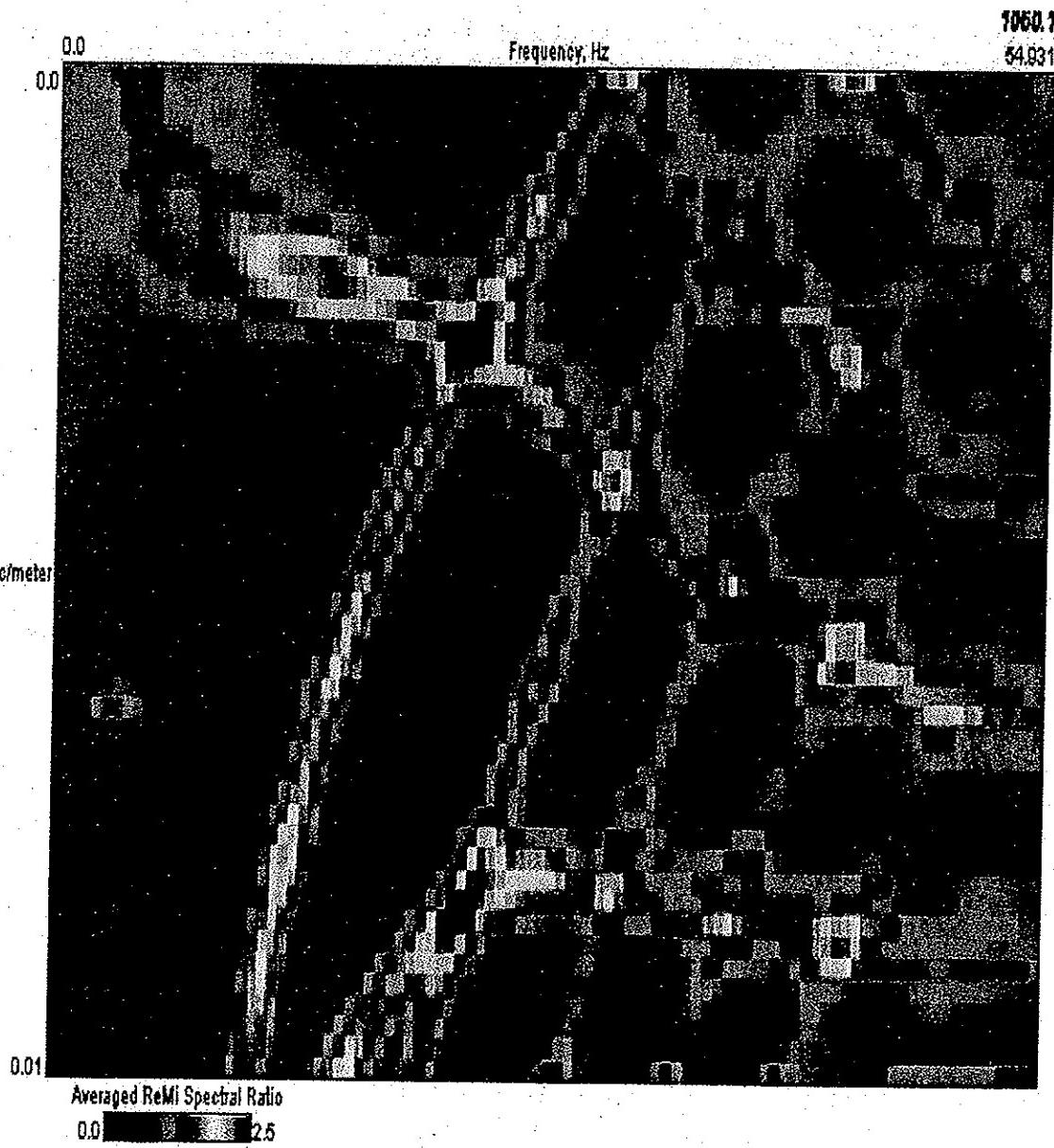
Shear-Wave Velocity, ft/s

	Prepared By:	Project Name:
	American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Golden Valley Ranch Mojave County, AZ
Project No: PN: 1060-GEO	Date: 09-09-05	Prepared For: RHODES HOMES

PN 1060.1: Supportive Illustration

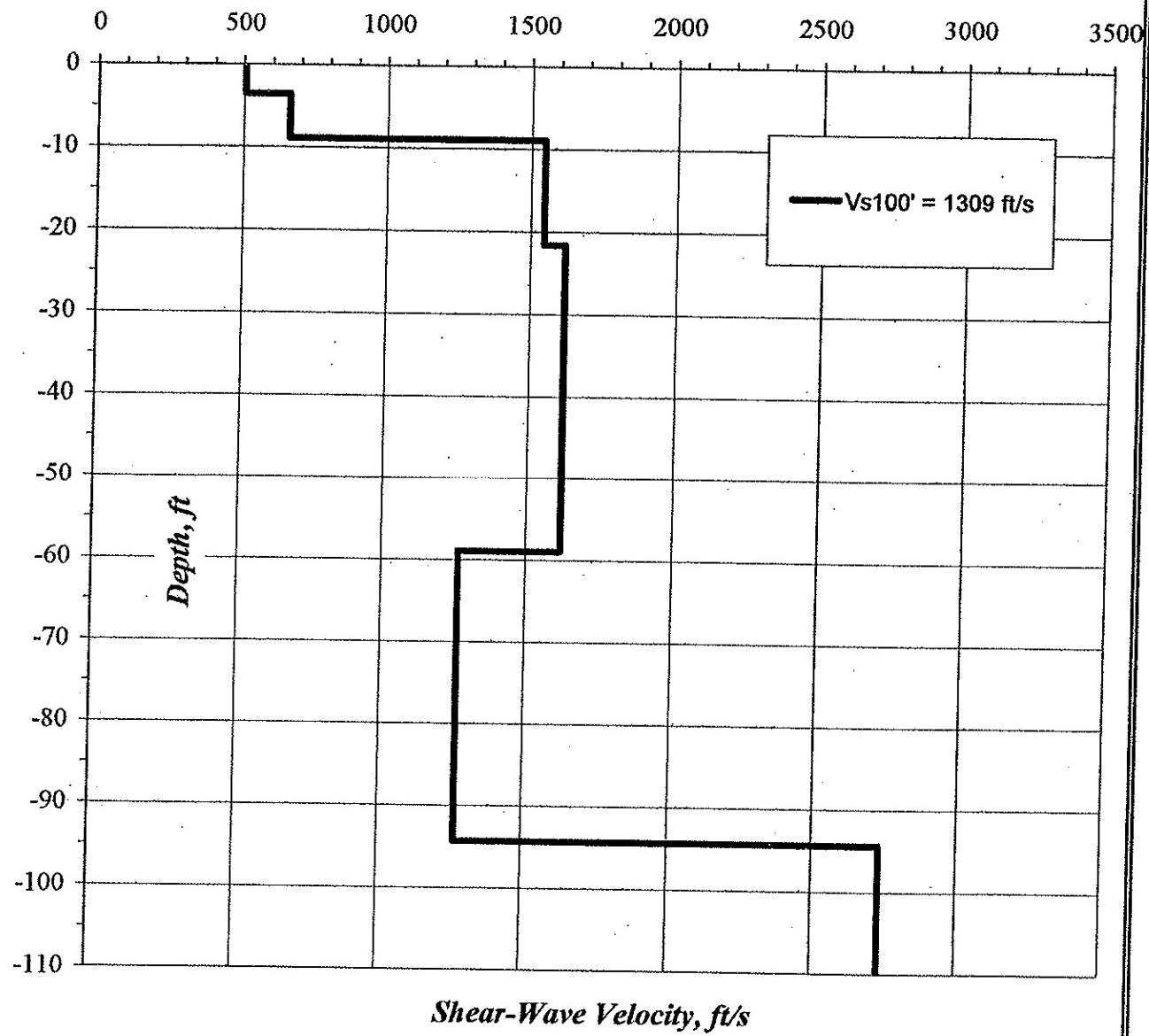
	Prepared By:		Project Name:
	American Soils Engineering, LLC	6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Golden Valley Ranch Mojave County, AZ
Project No:	Date:	Prepared For:	RHODES HOMES
PN: 1060-GEO	09-09-05		

p-f Image with Dispersion Modeling Picks



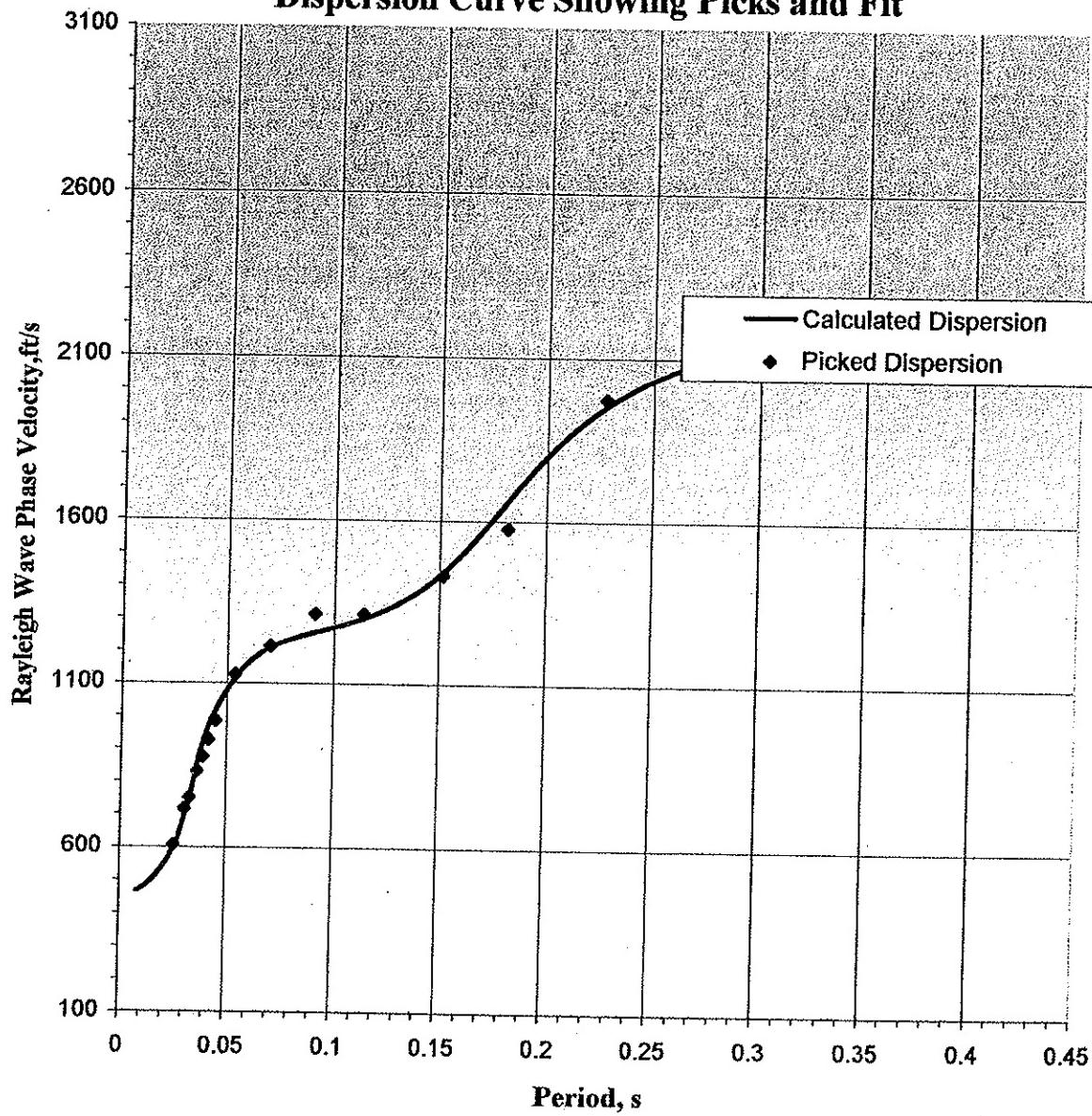
	<p>Prepared By: American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119</p>	<p>Project Name: Golden Valley Ranch Mojave County, AZ</p>
<p>Project No: PN: 1060-GEO</p>	<p>Date: 09-09-05</p>	<p>Prepared For: RHODES HOMES</p>

PN 1060.2: Vs Model



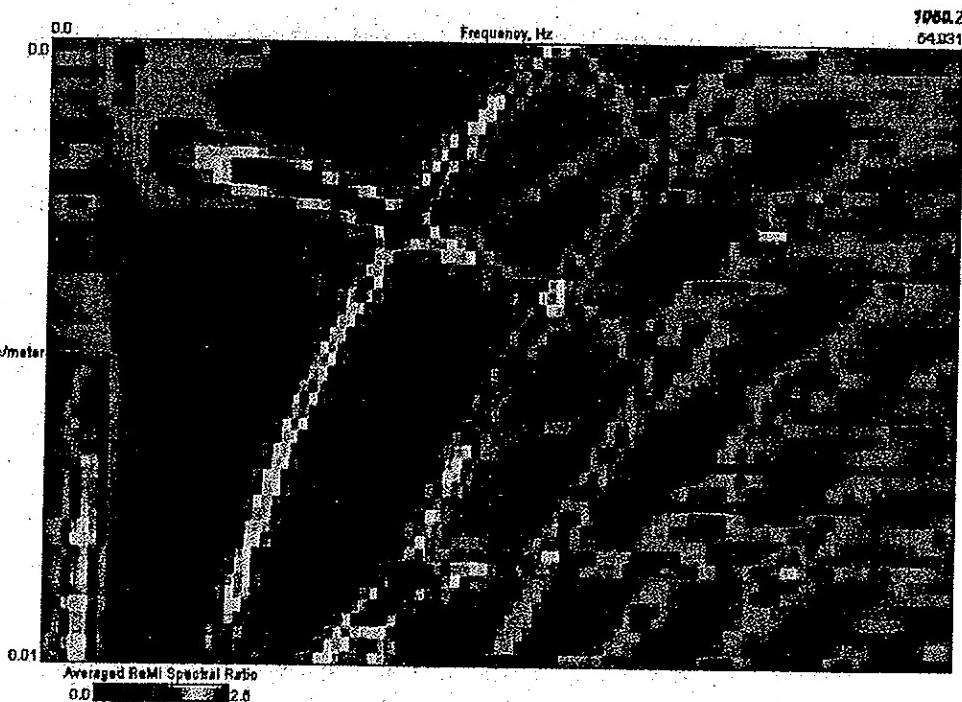
	Prepared By: American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Project Name: Golden Valley Ranch Mojave County, AZ
Project No: PN: 1060-GEO	Date: 09-09-05	Prepared For: RHODES HOMES

PN 1060.2: Supportive Illustration
Dispersion Curve Showing Picks and Fit



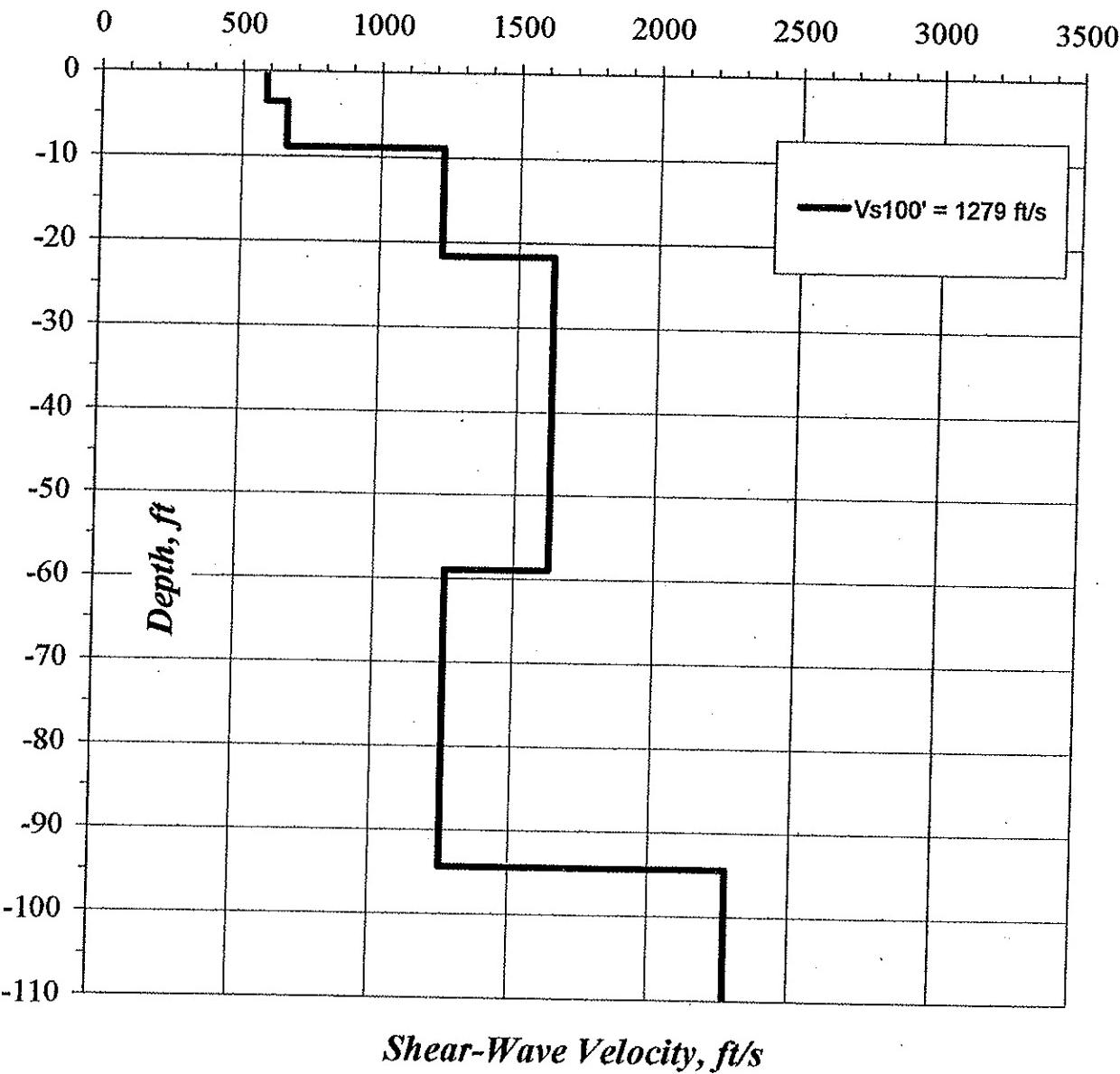
	Prepared By:	Project Name:
	American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Golden Valley Ranch Mojave County, AZ
Project No:	Date:	Prepared For:
PN: 1060-GEO	09-09-05	RHODES HOMES

p-f Image with Dispersion Modeling Picks



	Prepared By:		Project Name:
	American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119		Golden Valley Ranch Mojave County, AZ
Project No:	Date:	Prepared For:	RHODES HOMES
PN: 1060-GEO	09-09-05		

PN 1060.3: Vs Model



Shear-Wave Velocity, ft/s



Prepared By:

American Soils Engineering, LLC 6000
South Eastern Ave., Suite 12E
Las Vegas, NV 89119

Project Name:

Golden Valley Ranch
Mojave County, AZ

Project No:

PN: 1060-GEO

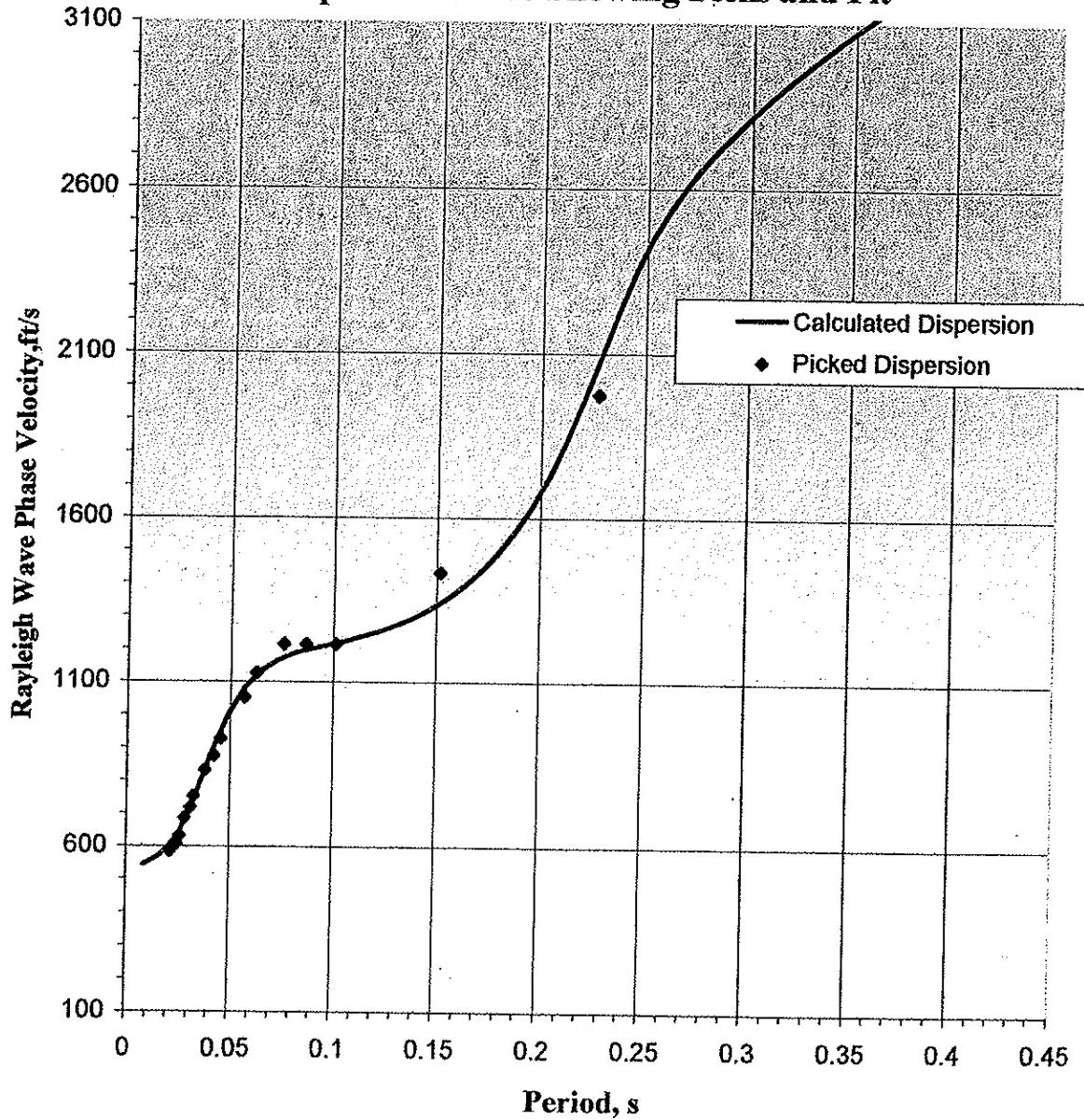
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09-09-05

Prepared For:

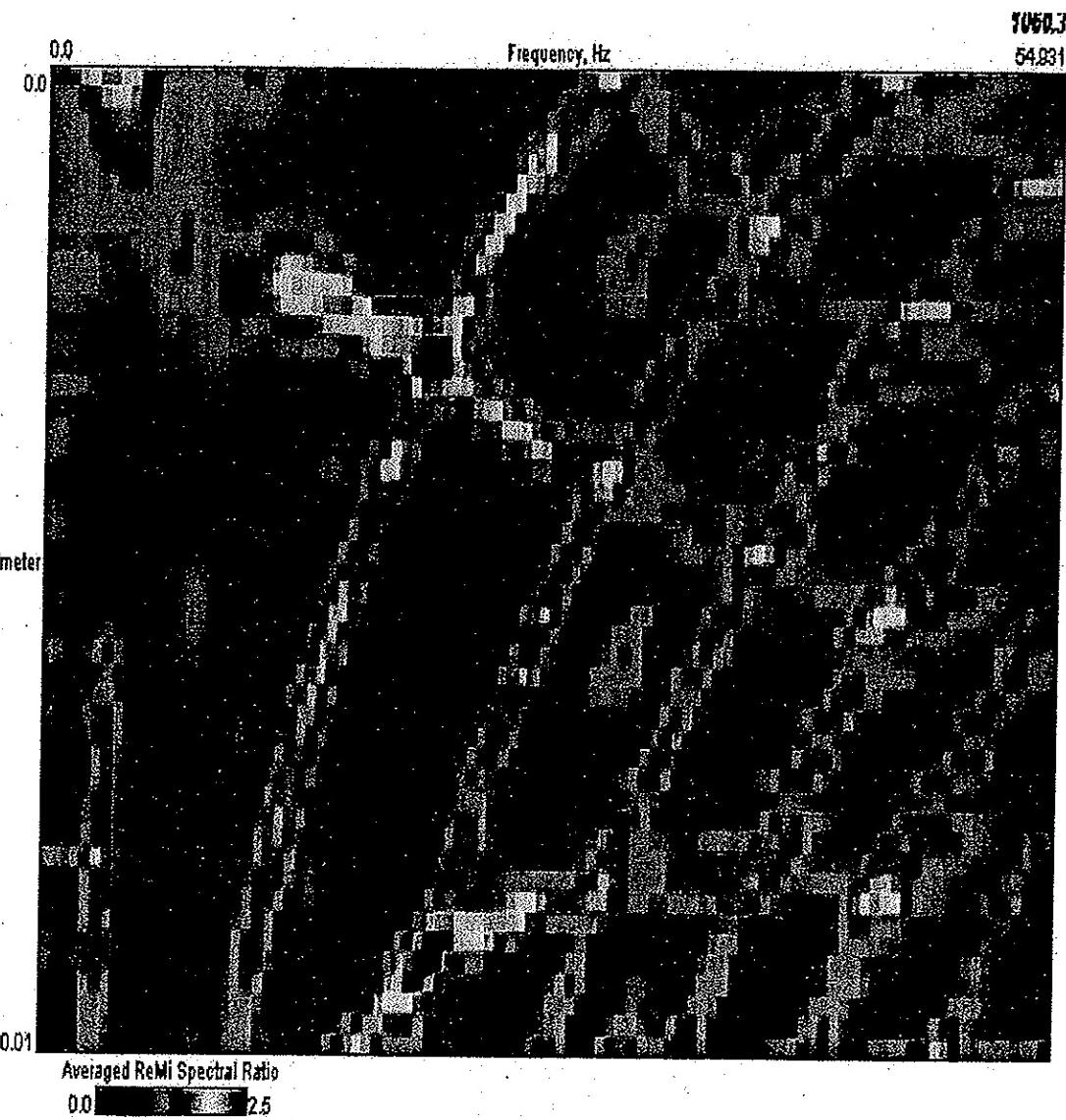
RHODES HOMES

PN 1060.3: Supportive Illustration
Dispersion Curve Showing Picks and Fit



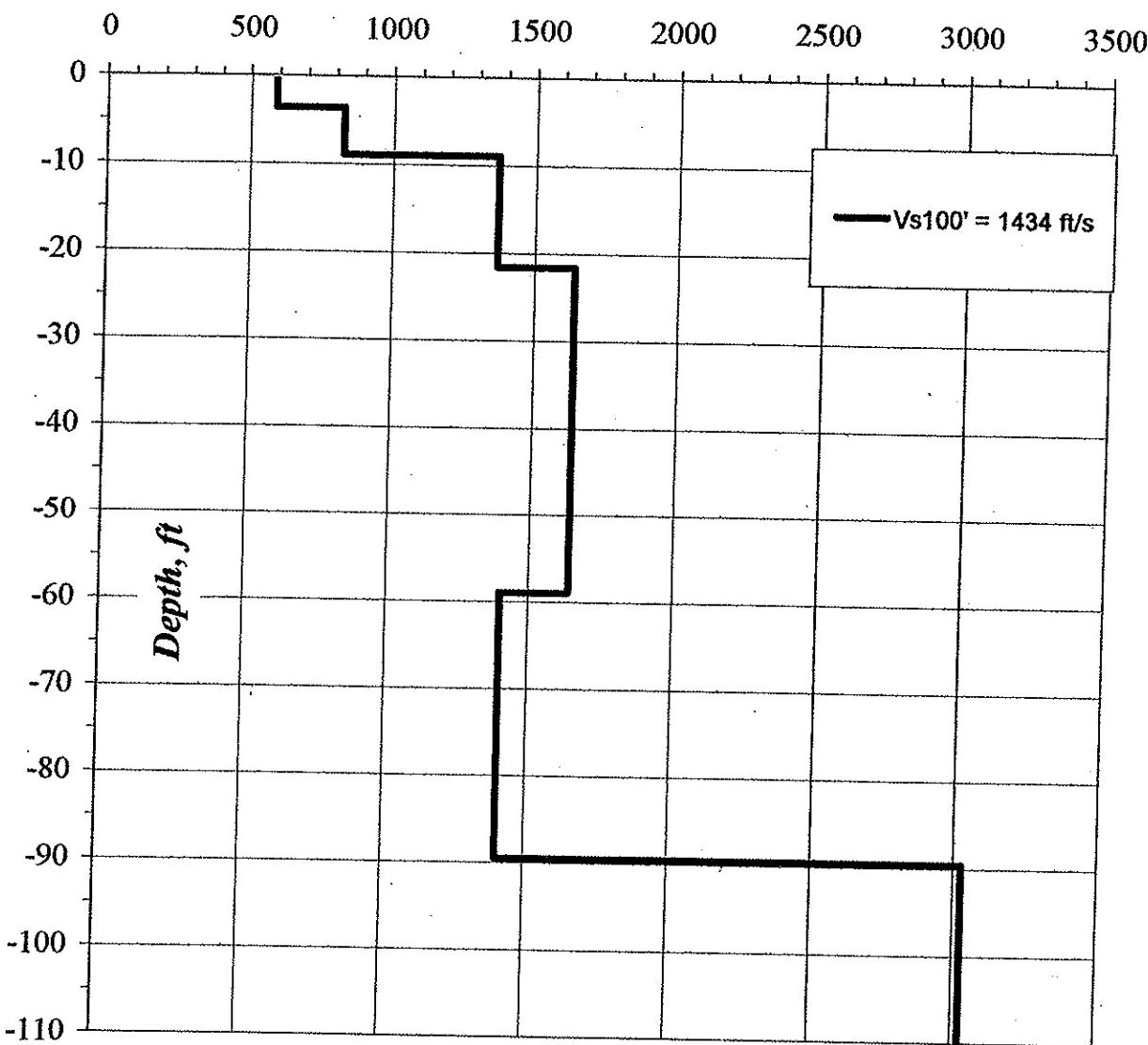
	Prepared By:		Project Name:
	American Soils Engineering, LLC	6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Golden Valley Ranch Mojave County, AZ
Project No:	Date:	Prepared For:	RHODES HOMES
PN: 1060-GEO	09-09-05		

p-f Image with Dispersion Modeling Picks



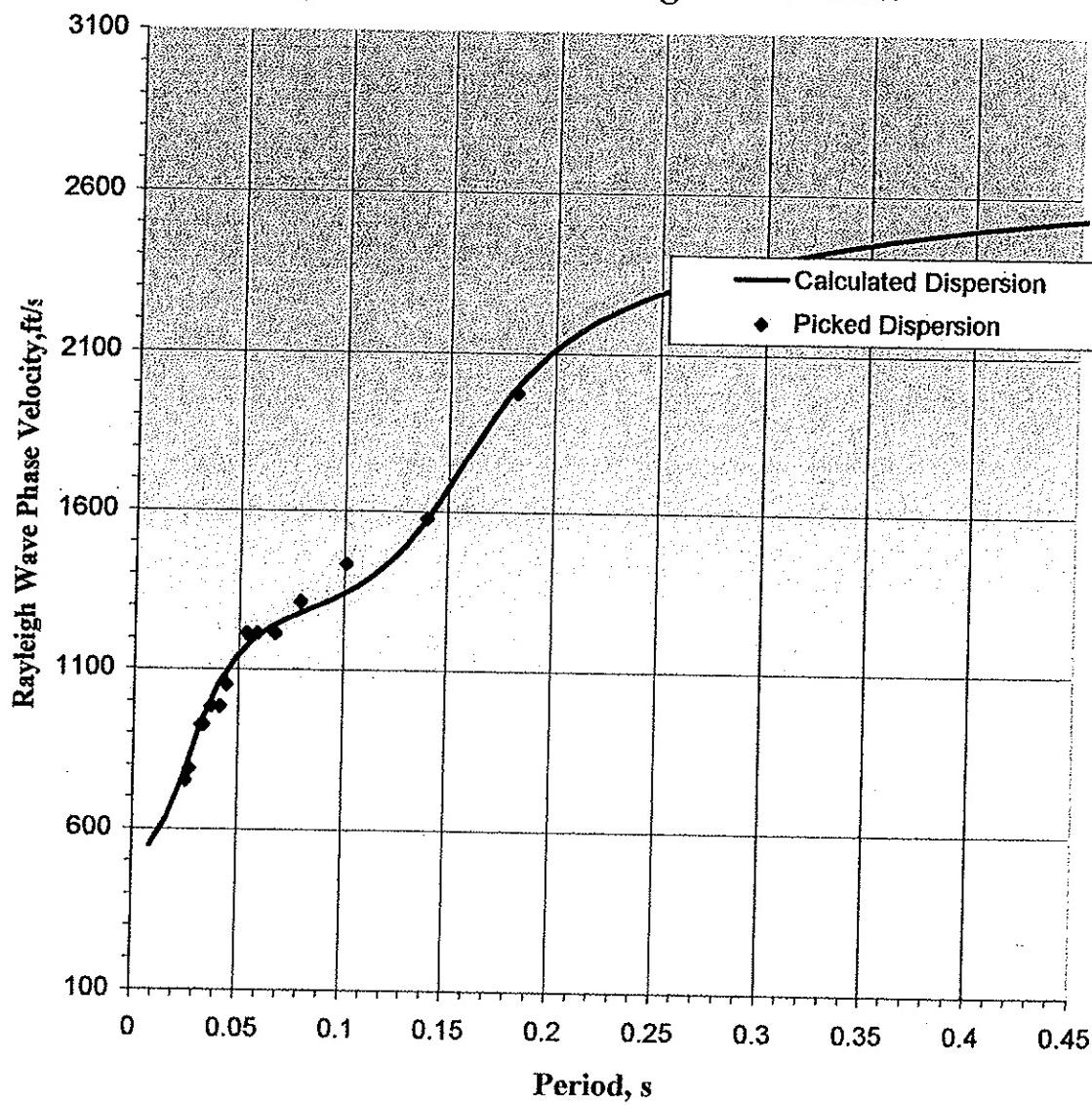
	Prepared By:		Project Name:
	American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119		Golden Valley Ranch Mojave County, AZ
Project No: PN: 1060-GEO	Date: 09-09-05	Prepared For:	RHODES HOMES

PN 1060.4: Vs Model



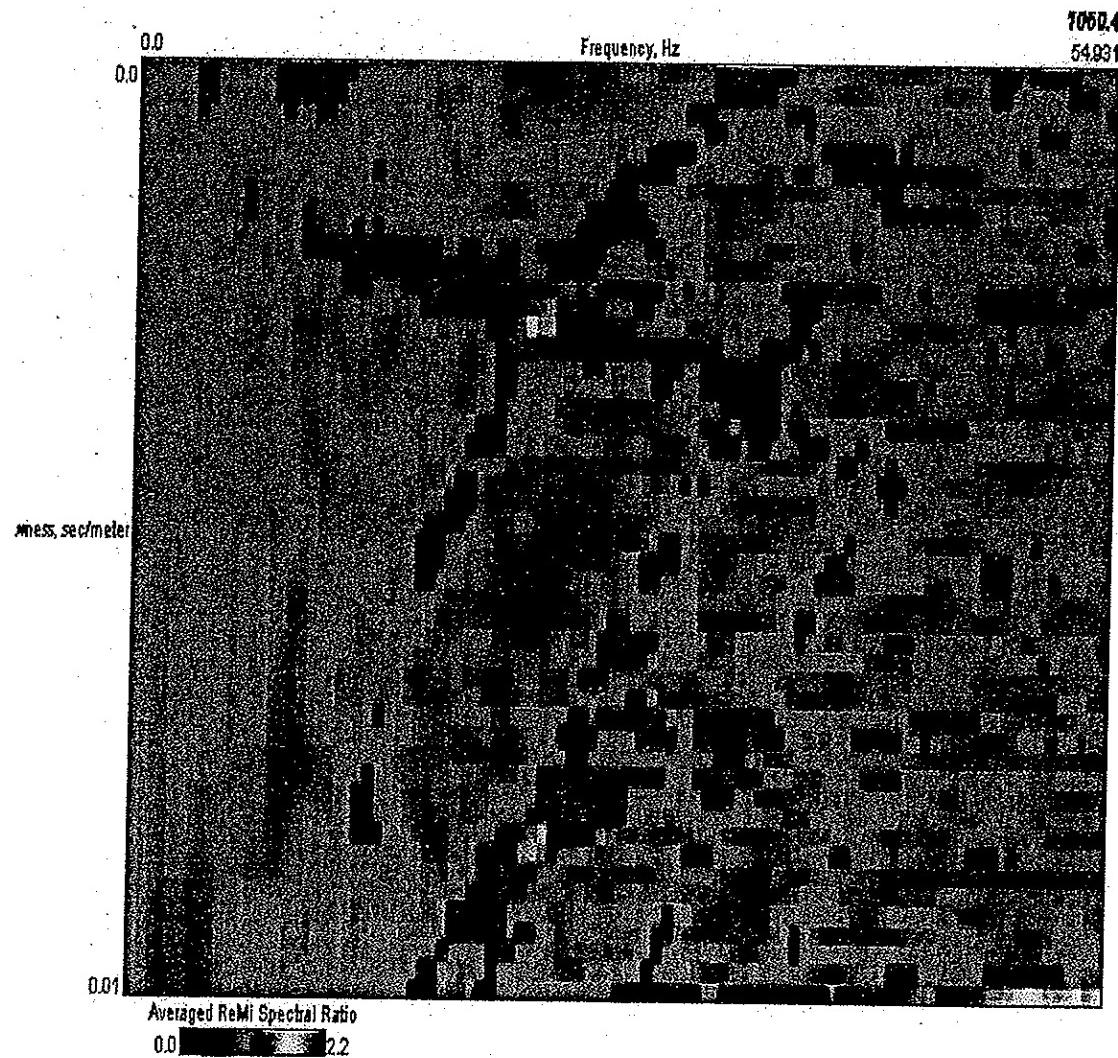
Shear-Wave Velocity, ft/s

	Prepared By: American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Project Name: Golden Valley Ranch Mojave County, AZ
Project No: PN: 1060-GEO	Date: 09-09-05	Prepared For: RHODES HOMES

PN 1060.4: Supportive Illustration**Dispersion Curve Showing Picks and Fit**

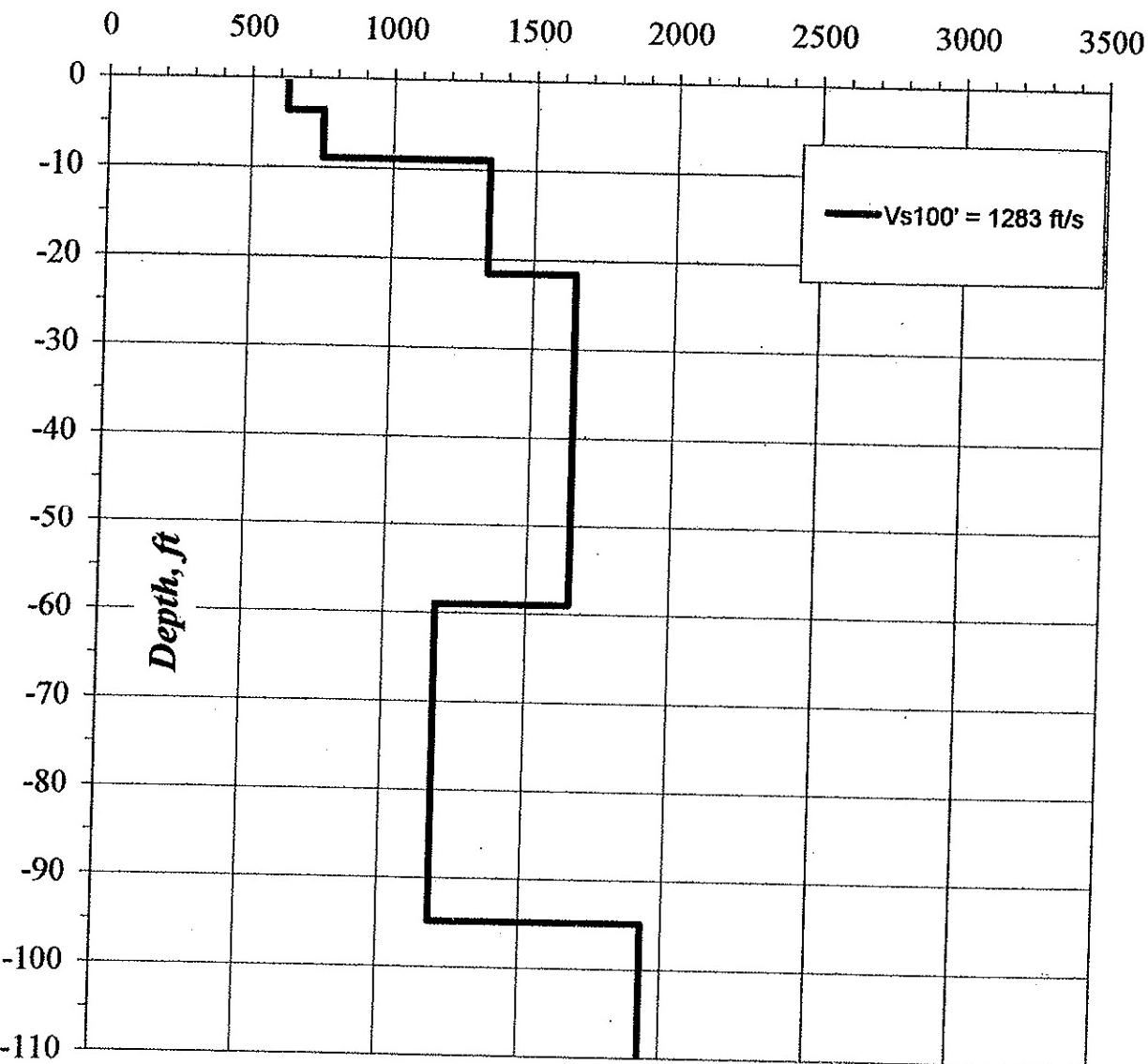
	Prepared By:	Project Name:
	American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Golden Valley Ranch Mojave County, AZ
Project No:	Date:	Prepared For:
PN: 1060-GEO	09-09-05	Rhodes Homes

p-f Image with Dispersion Modeling Picks



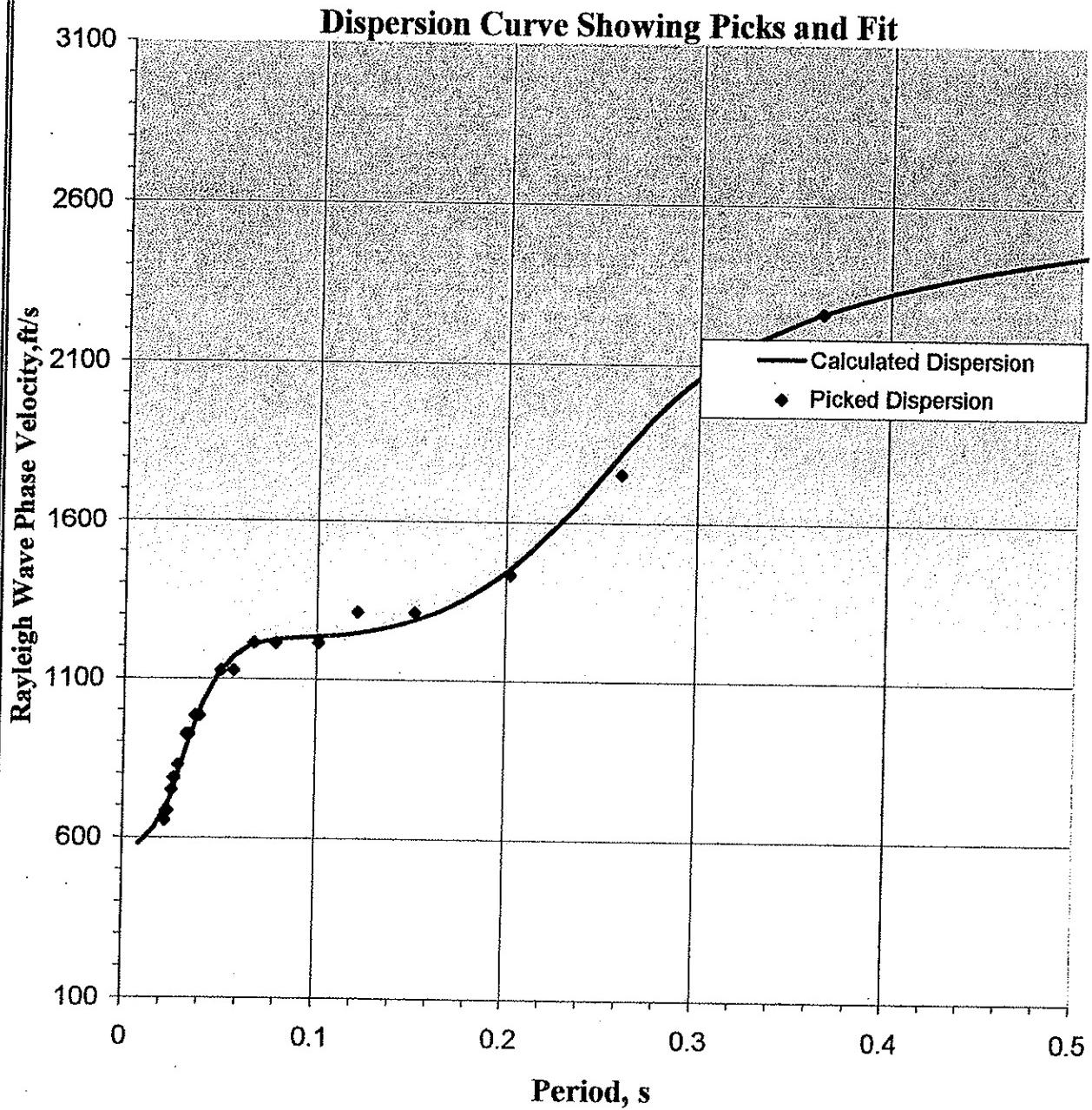
	Prepared By: American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Project Name: Golden Valley Ranch Mojave County, AZ
Project No: PN: 1060-GEO	Date: 09-09-05	Prepared For: RHODES HOMES

PN 1060.5: Vs Model



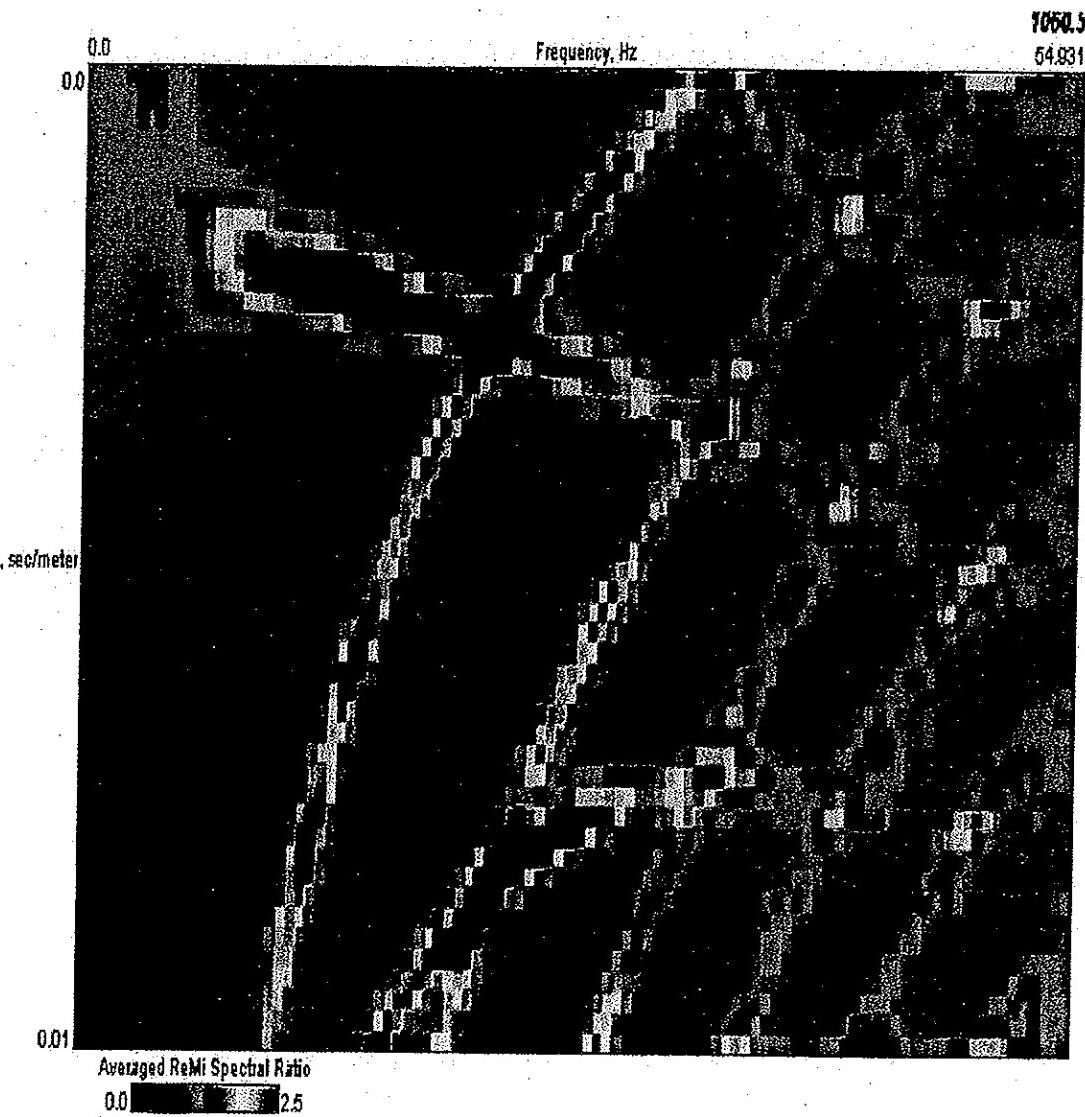
Shear-Wave Velocity, ft/s

	Prepared By:	Project Name:
	American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Golden Valley Ranch Mojave County, AZ
Project No: PN: 1060-GEO	Date: 09-09-05	Prepared For: RHODES HOMES

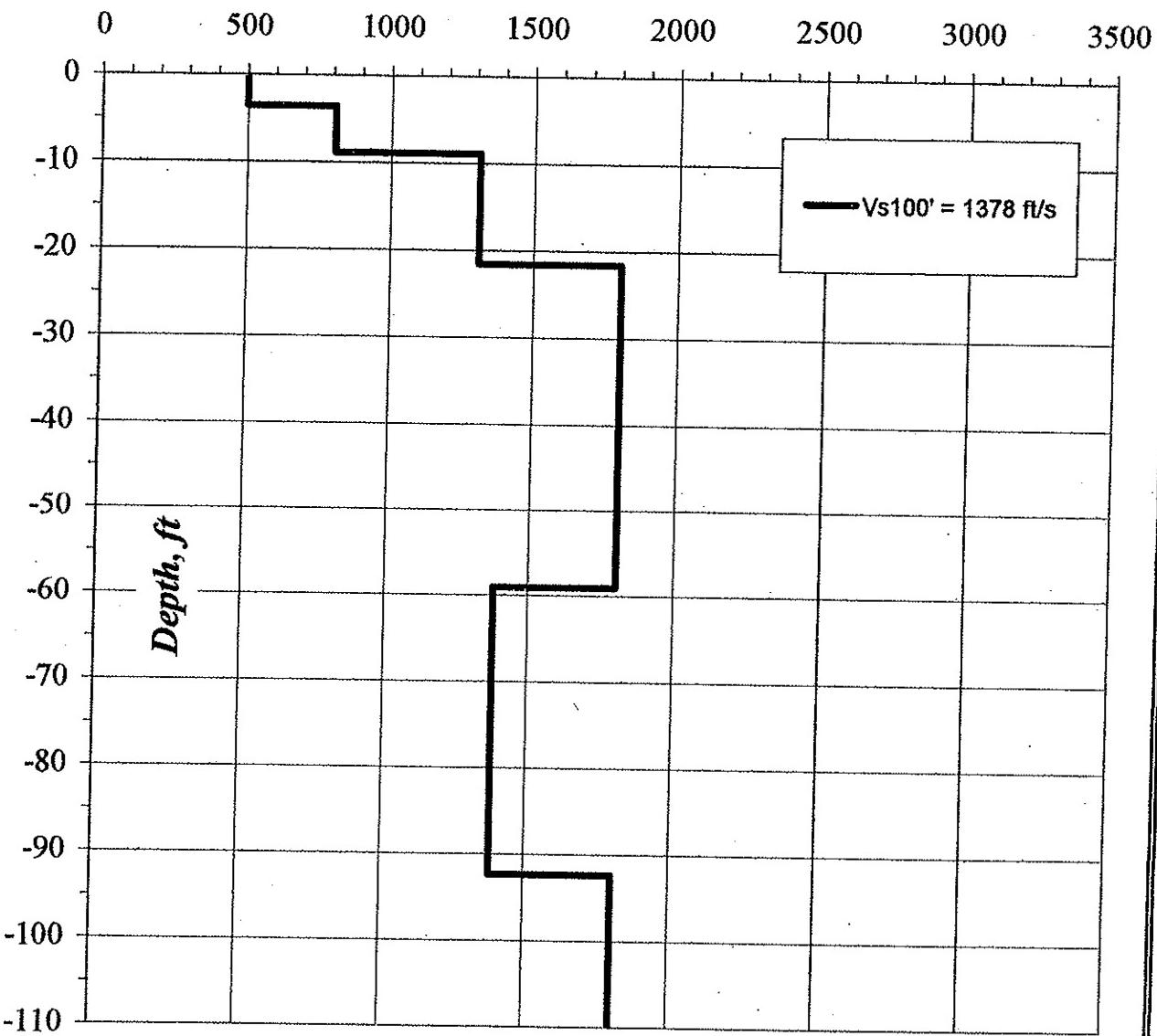
PN 1060.5: Supportive Illustration

	Prepared By:		Project Name:
	American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119		Golden Valley Ranch Mojave County, AZ
	Project No: PN: 1060-GEO	Date: 09-09-05	Prepared For: RHODES HOMES

p-f Image with Dispersion Modeling Picks

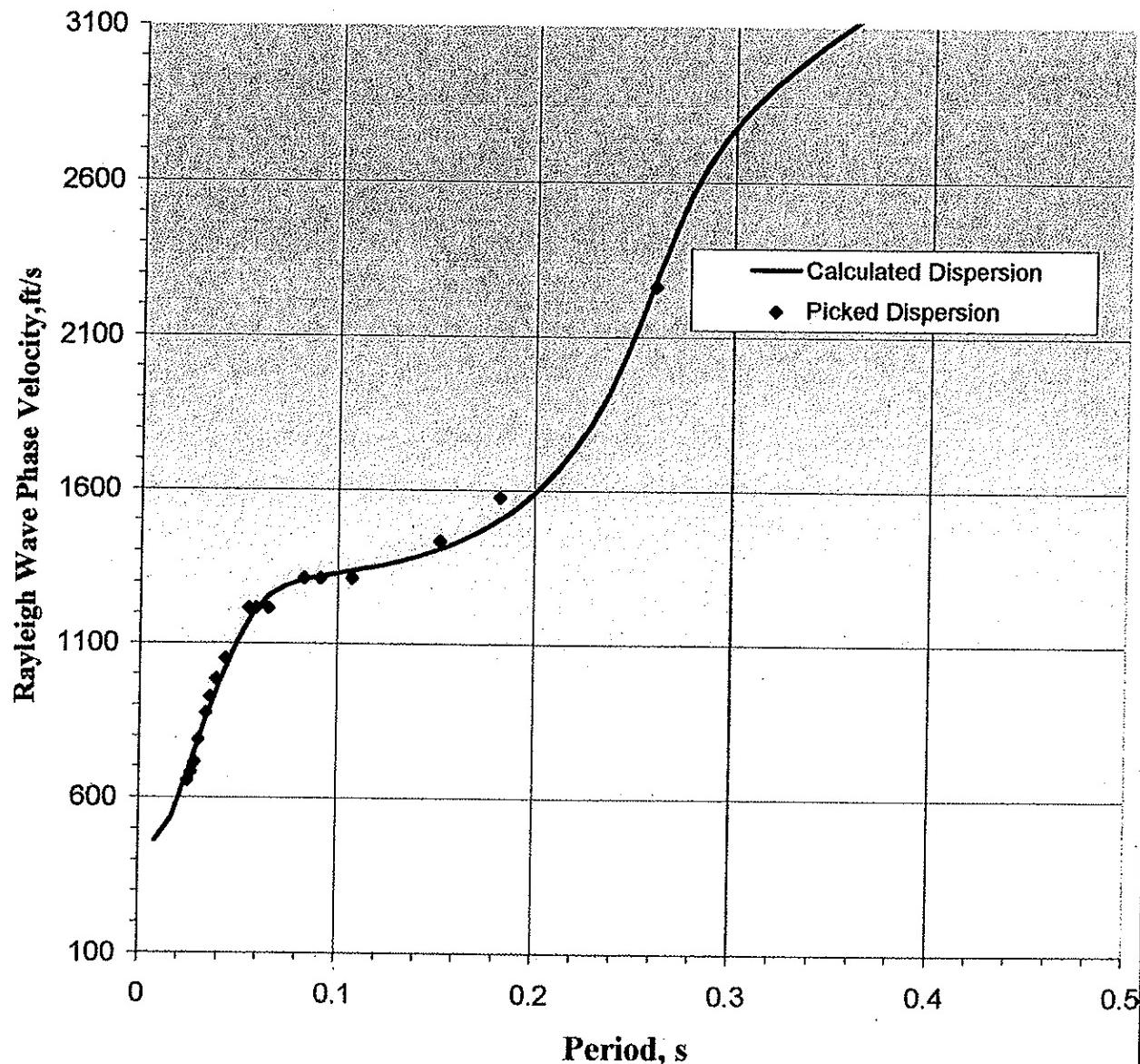


	Prepared By:		Project Name:
	American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119		Golden Valley Ranch Mojave County, AZ
Project No: PN: 1060-GEO	Date: 09-09-05	Prepared For:	RHODES HOMES

PN 1060.6: Vs Model***Shear-Wave Velocity, ft/s***

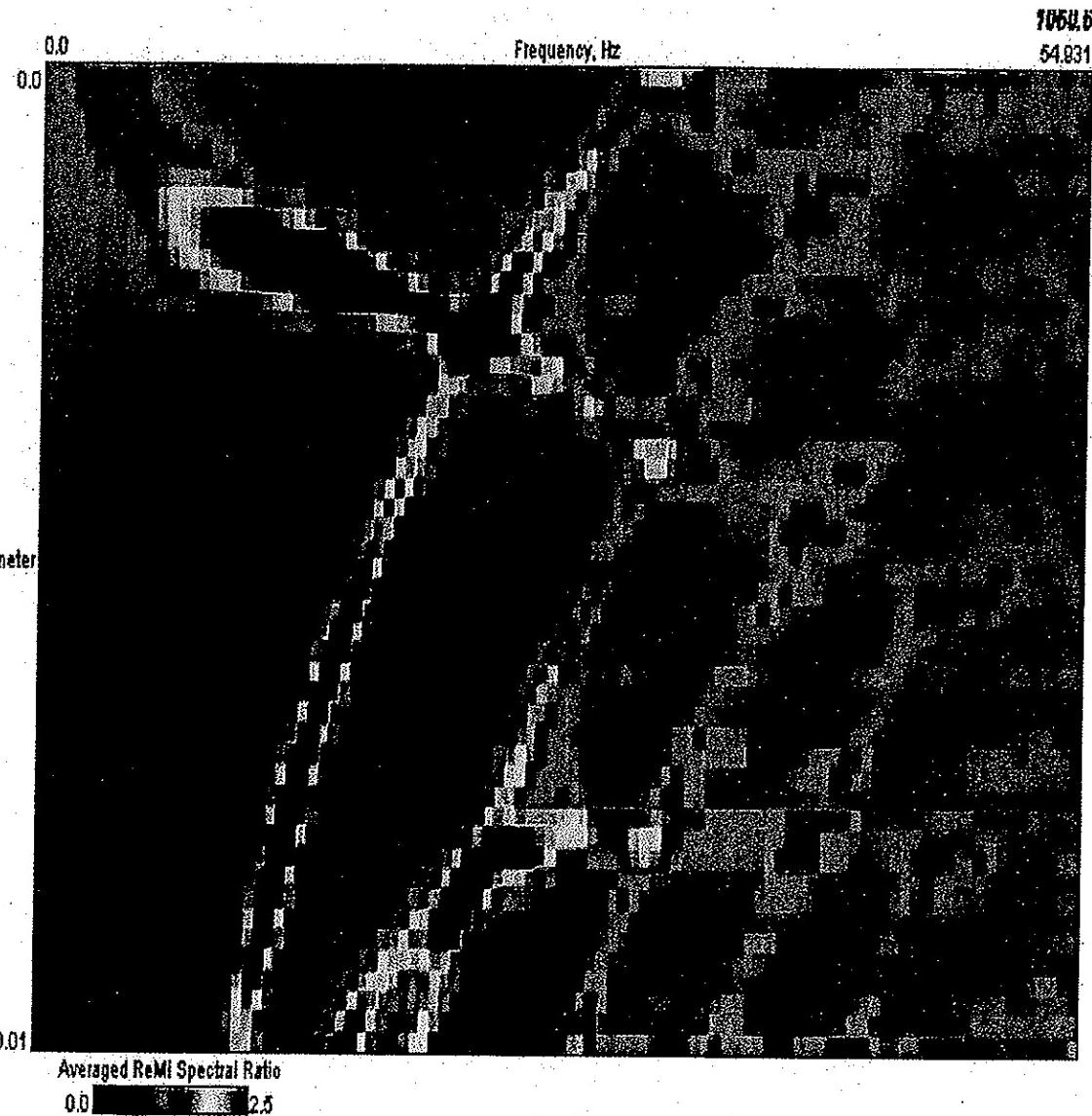
Prepared By:	Project Name:	
American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Golden Valley Ranch Mojave County, AZ	
Project No:	Date:	Prepared For:
PN: 1060-GEO	09-09-05	RHODES HOMES

PN 1060.6: Supportive Illustration
Dispersion Curve Showing Picks and Fit

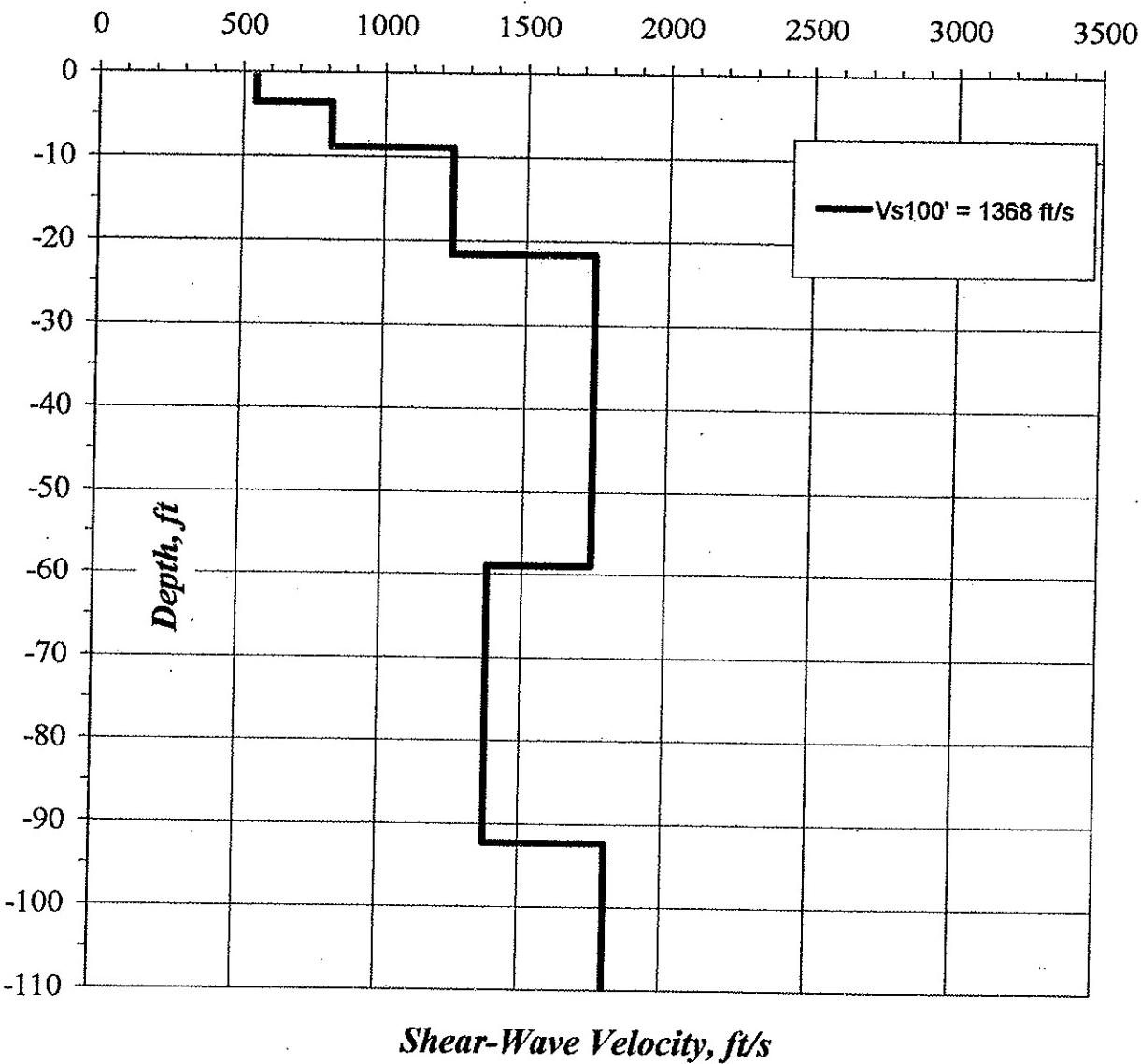


	Prepared By:	Project Name:
	American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Golden Valley Ranch Mojave County, AZ
Project No:	Date:	Prepared For:
PN: 1060-GEO	09-09-05	RHODES HOMES

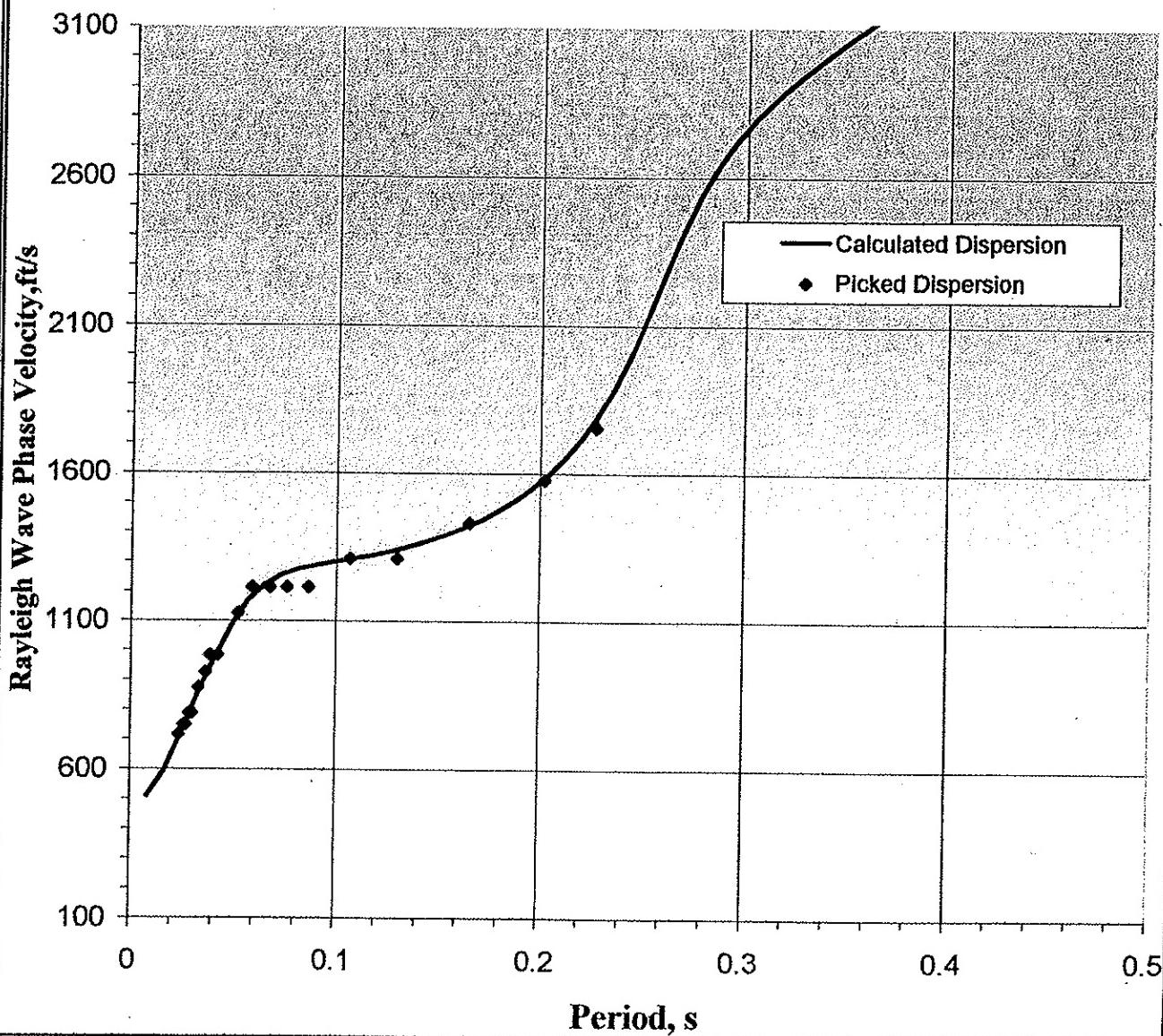
d-f Image with Dispersion Modeling Picks



	Prepared By: American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Project Name: Golden Valley Ranch Mojave County, AZ
Project No: PN: 1060-GEO	Date: 09-09-05	Prepared For: RHODES HOMES

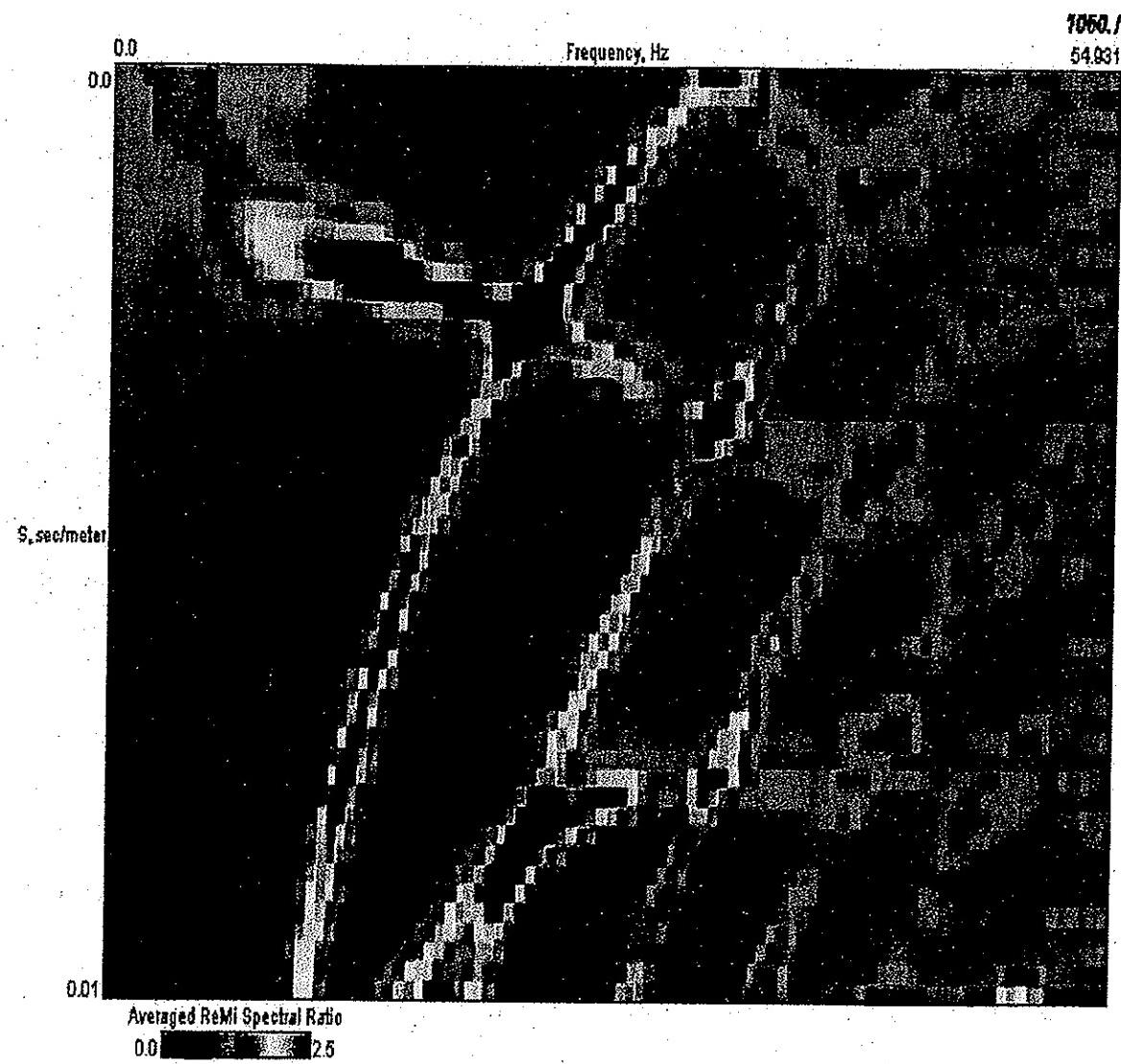
PN 1060.7: Vs Model

	Prepared By:	Project Name:
	American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Golden Valley Ranch Mojave County, AZ
Project No:	Date:	Prepared For:
PN: 1060-GEO	09-09-05	RHODES HOMES

PN 1060.7: Supportive Illustration**Dispersion Curve Showing Picks and Fit**

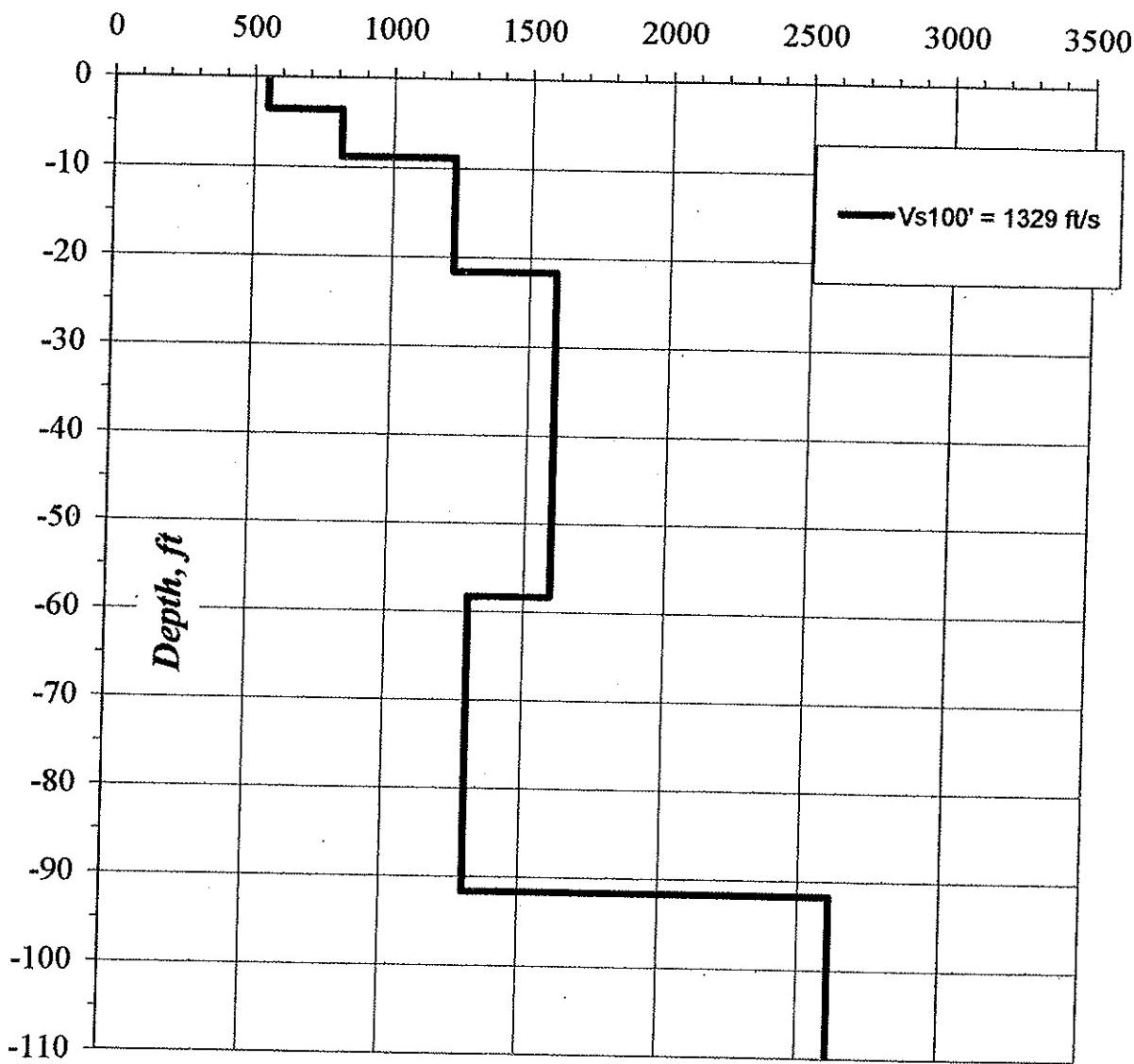
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	American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Golden Valley Ranch Mojave County, AZ	
Project No:	PN: 1060-GEO	Date:	Prepared For:
		09-09-05	RHODES HOMES

p-f Image with Dispersion Modeling Picks



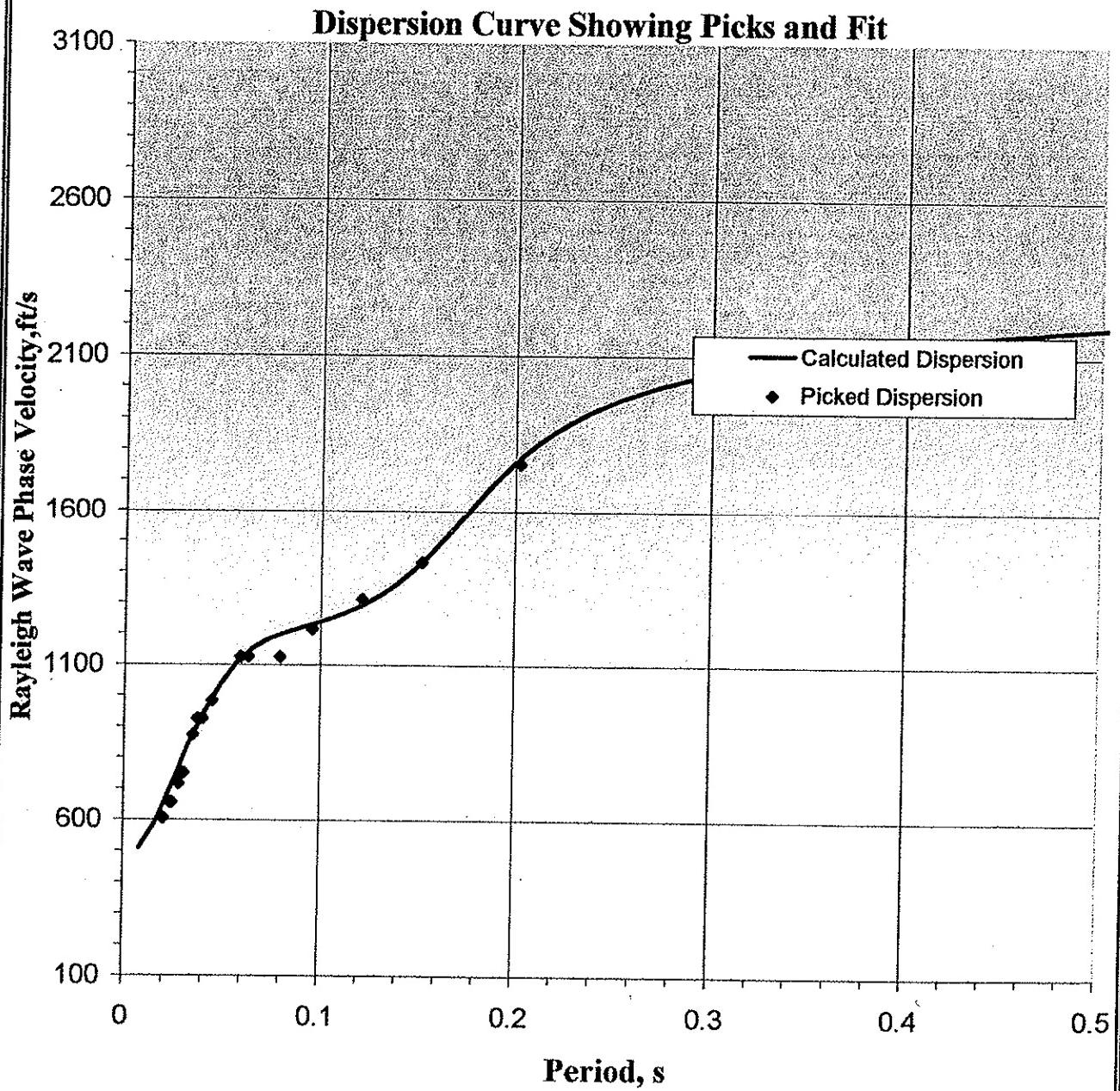
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Project No:	Date:	Prepared For:	
PN: 1060-GEO	09-09-05	RHODES HOMES	

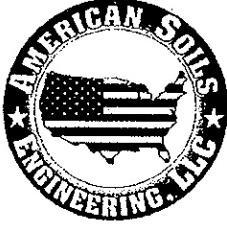
PN 1060.8: Vs Model



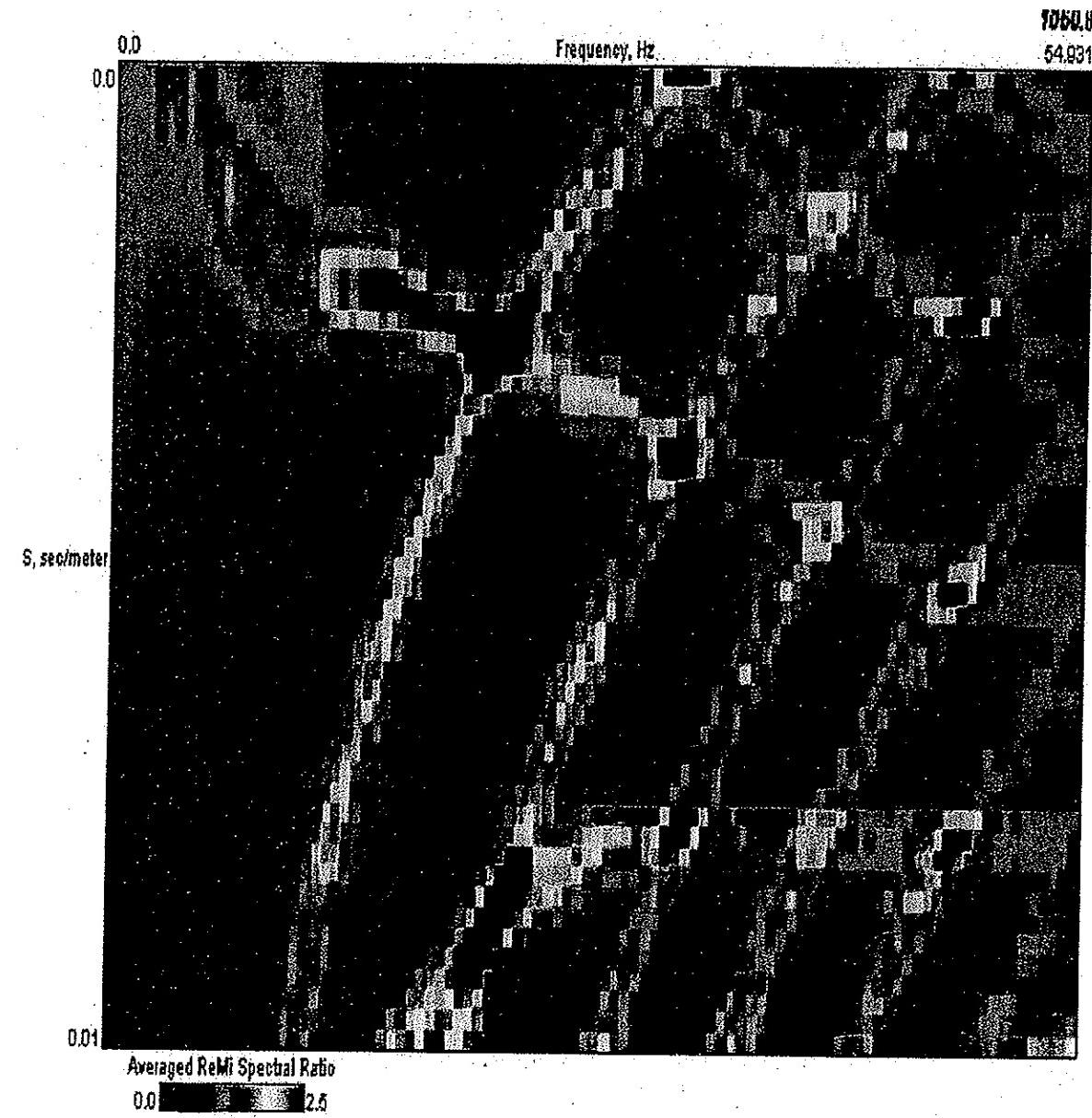
Shear-Wave Velocity, ft/s

	Prepared By:	Project Name:
	American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Golden Valley Ranch Mojave County, AZ
Project No: PN: 1060-GEO	Date: 09-09-05	Prepared For: RHODES HOMES

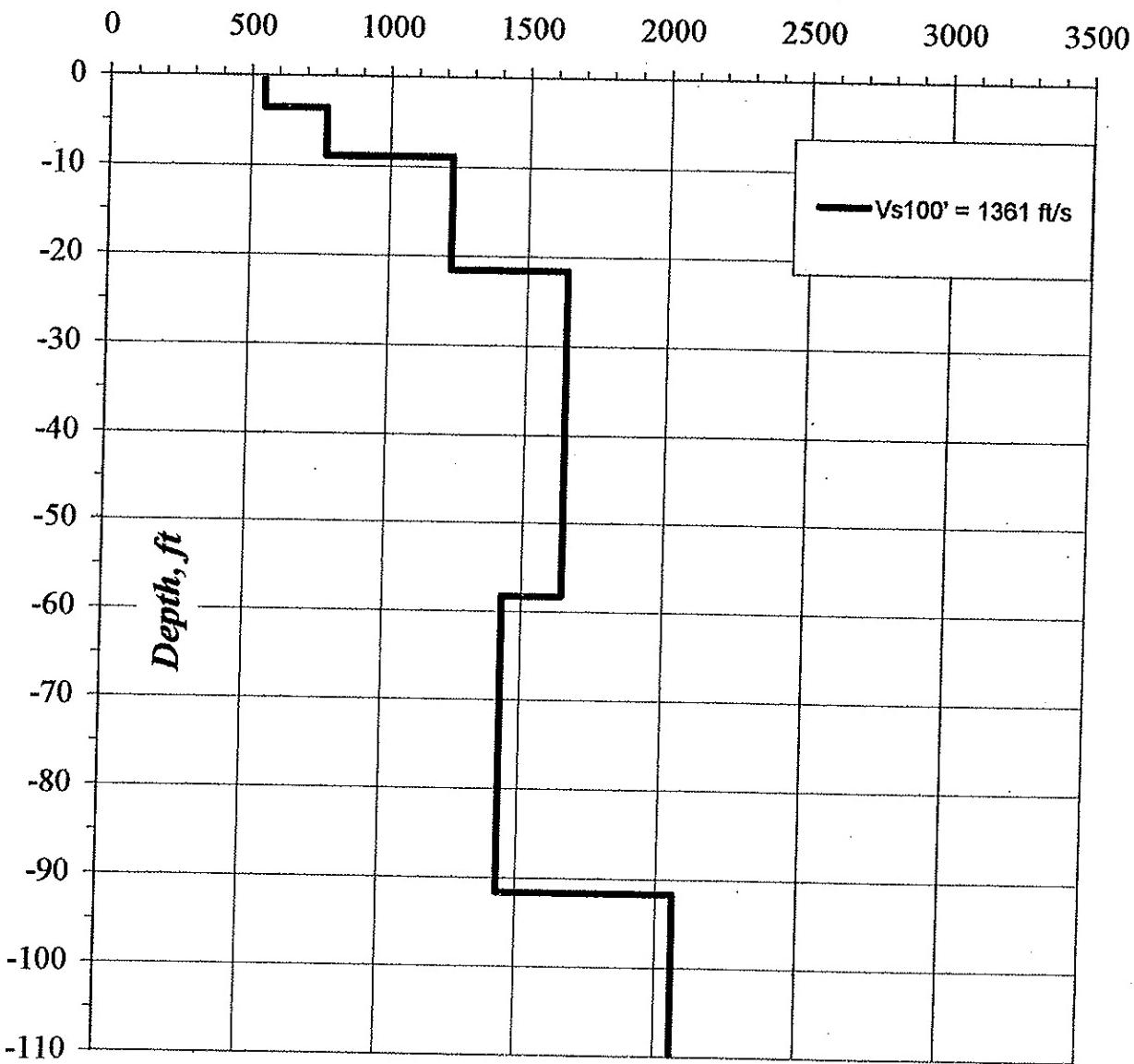
PN 1060.8: Supportive Illustration

	Prepared By:		Project Name:
	American Soils Engineering, LLC	6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Golden Valley Ranch Mojave County, AZ
Project No:	Date:	Prepared For:	RHODES HOMES
PN: 1060-GEO	09-09-05		

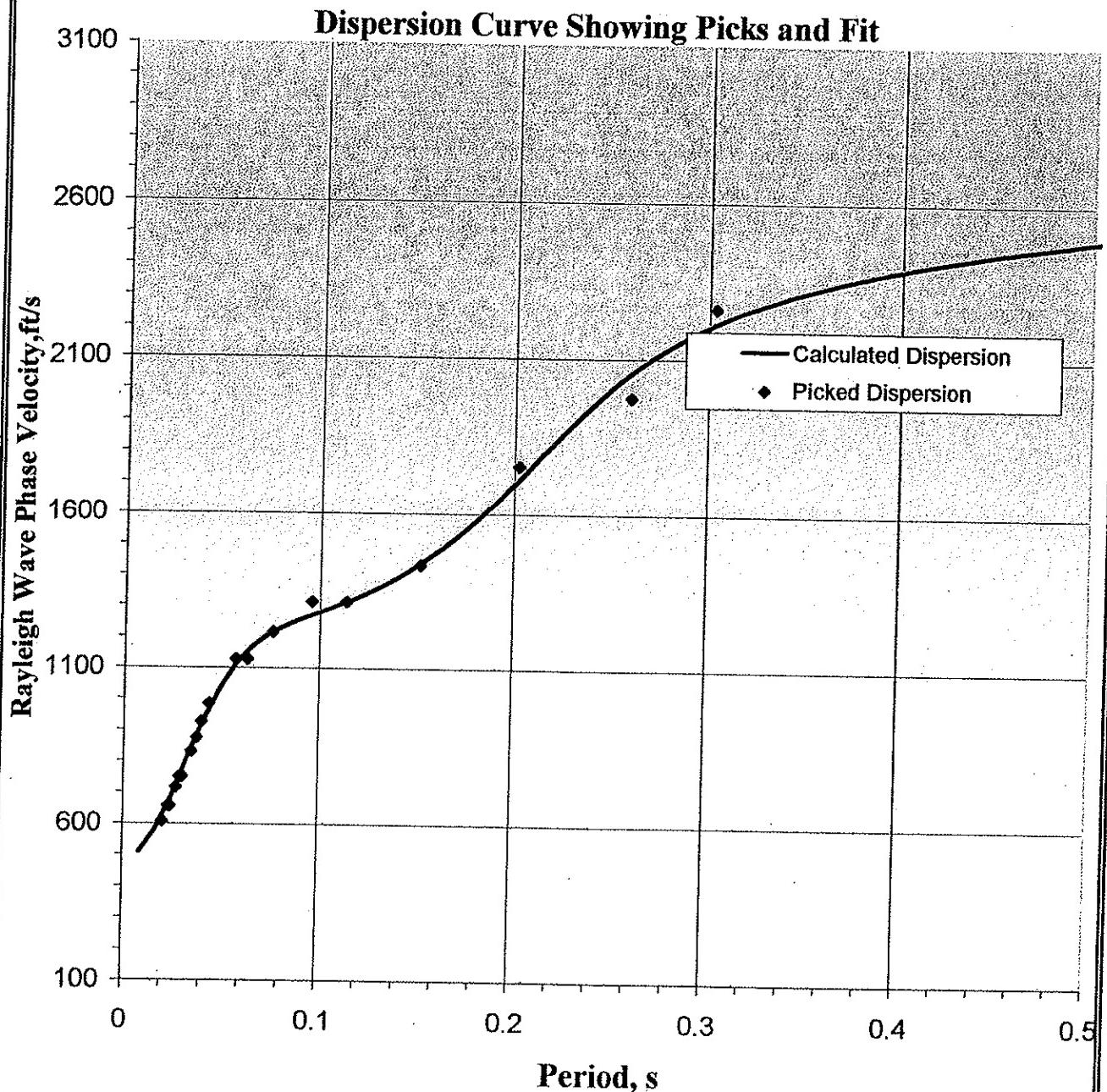
p-f Image with Dispersion Modeling Picks



	Prepared By:	Project Name:
	American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Golden Valley Ranch Mojave County, AZ
Project No:	Date:	Prepared For:
PN: 1060-GEO	09-09-05	RHODES HOMES

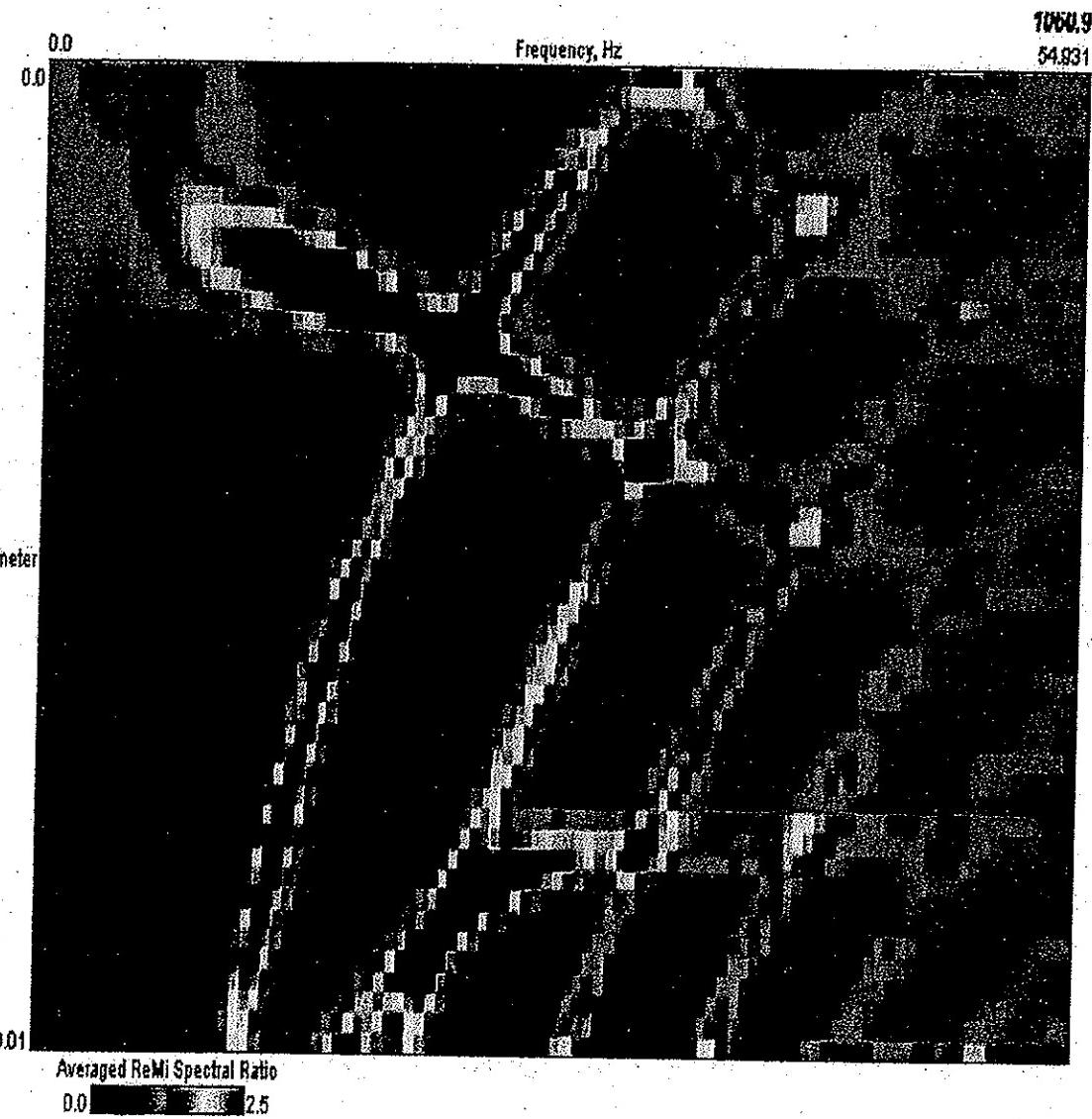
PN 1060.9: Vs Model***Shear-Wave Velocity, ft/s***

	Prepared By:		Project Name:
	American Soils Engineering, LLC	6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Golden Valley Ranch Mojave County, AZ
Project No:	Date:	Prepared For:	RHODES HOMES
PN: 1060-GEO	09-09-05		

PN 1060.9: Supportive Illustration

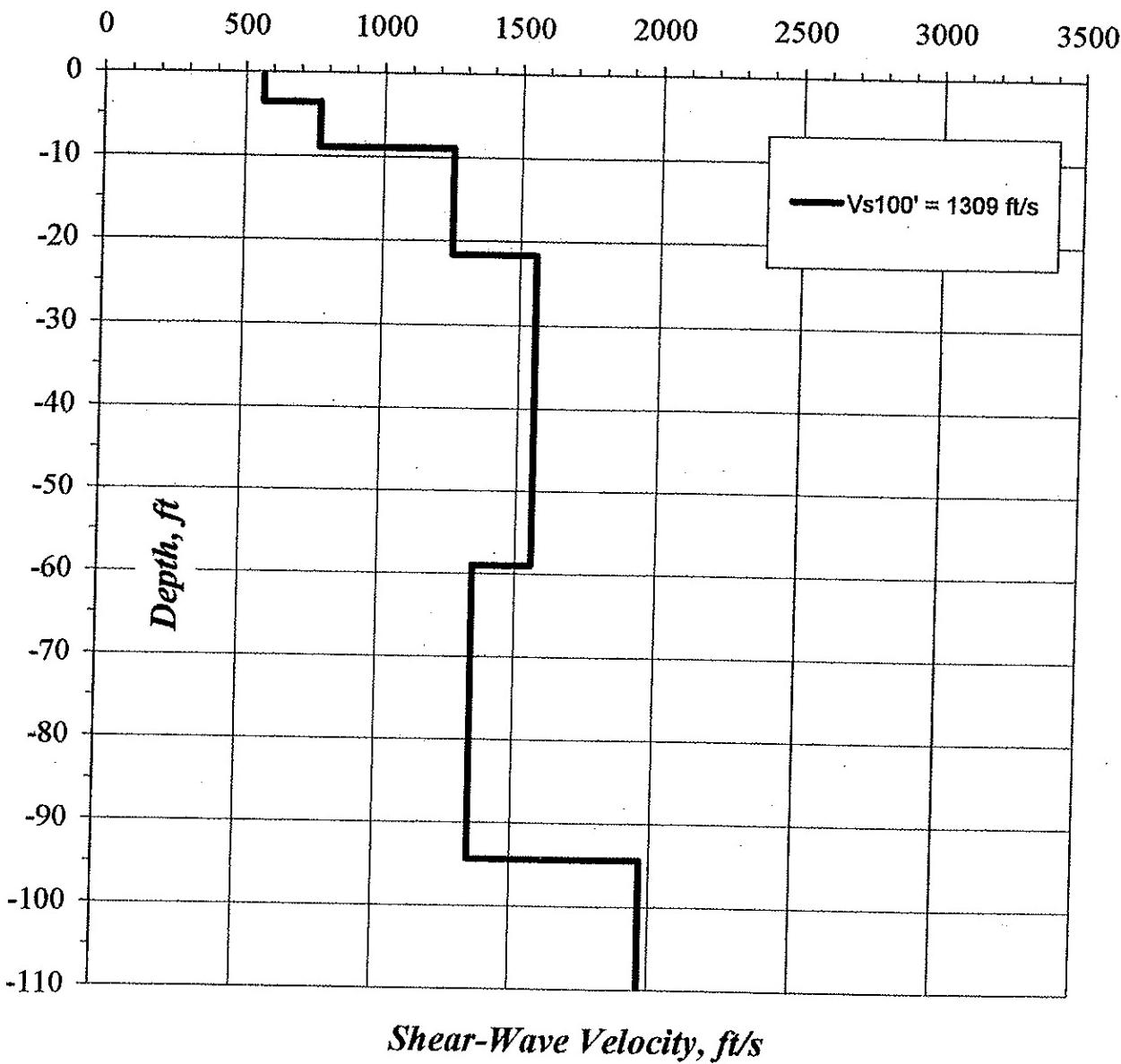
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	American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Golden Valley Ranch Mojave County, AZ
Project No:	Date:	Prepared For:
PN: 1060-GEO	09-09-05	RHODES HOMES

p-f Image with Dispersion Modeling Picks



	Prepared By: American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Project Name: Golden Valley Ranch Mojave County, AZ
Project No: PN: 1060-GEO	Date: 09-09-05	Prepared For: RHODES HOMES

PN 1060.10: Vs Model



Shear-Wave Velocity, ft/s

	Prepared By: American Soils Engineering, LLC 6000 South Eastern Ave., Suite 12E Las Vegas, NV 89119	Project Name: Golden Valley Ranch Mojave County, AZ
Project No: PN: 1060-GEO	Date: 09-09-05	Prepared For: RHODES HOMES